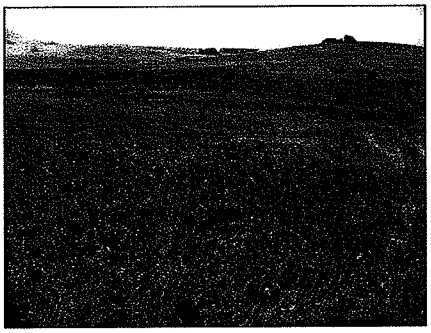
Biological Report

for the proposed

Righetti Agricultural Cluster
Vesting Tentative Tract 3004
APN 044-051-028

San Luis Obispo County
California



Prepared for

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July 2005
Revised December 2008

461.04

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Executive Summary

- This Biological Report examines 85 acres of an approximately 200 acre property (APN 044-051-028) in the Edna Valley of San Luis Obispo County, California. The property is located north of Orcutt Road, east of the City of San Luis Obispo.

- The proposed project is an agricultural cluster residential development consisting of eight lots. Access to the development would be from existing paved and agricultural roads; road improvements are anticipated. A new loop road through the development would also be constructed.

- The approximately 85-acre project site consists of four habitats in which 91 species of plants were identified during botanical surveys in 2005 and 2008.

- State and federal wetlands occur on the property. A wetland delineation was conducted for the project site by Althouse and Meade, Inc. (July 2005). Some additional areas of potential wetlands and waters of the United States not covered in the 2005 wetland delineation report may require further investigation if road widening is proposed.

- Two special status plants and two special status animals were documented at the project site.

- Biological resources that could be impacted by an agricultural cluster development include common and special status animals, nesting birds, special status plants, and grassland, wetland, and riparian habitat.

- Potential impacts to biological resources are discussed in Section 5.0, and mitigation recommendations are provided in Section 6.0.

1.0 Introduction

This report provides information regarding biological resources that could be affected by an agricultural cluster development on an 85-acre project site (Site) in San Luis Obispo County, California. Results are reported for floristic and wildlife surveys of the Site conducted in 2005 and 2008. Also reported is a habitat inventory, and results of database and literature searches of special status species reports within five miles of the Site. Natural communities on the Site are identified, special status species that could occur on the Site or be affected by the proposed project are discussed, and lists of plant and animal species that were identified or are expected on the Site are provided. This report provides agencies and decision makers with information regarding biological resources on the Site, and assesses potential impacts to biological resources that could occur from the proposed project. An evaluation of the effect of the proposed project on biological resources is included, and mitigation measures are provided.

1.1 Project Location and Description

The Site is located southeast of the City of San Luis Obispo on the lower west slope of the Santa Lucia Mountains in San Luis Obispo County, California (Section 8.0, Figure 1). Approximate coordinates for the property are N35° 14' 48" W120° 36' 14," in the Lopez Mountain and Arroyo Grande NE USGS 7.5 minute quadrangles. Elevation varies from approximately 320 to 440 feet above sea level. The entire property, APN 044-051-028, is approximately 200 acres in size; the Site is an approximately 85 acre portion of this property. The remaining 115 acres is currently planted to vineyards and avocados. Access to the Site is from a paved private road that connects Orcutt Road with the southwest corner of the project site (Section 8.0, Figure 2).

The proposed project is an agricultural cluster residential development consisting of eight lots of 1.67 acres each (refer to development plan in Section 7.0). Each lot would have a septic leach field and building envelope. Primary access to the development would be from Orcutt Road at the west end of the Site. The primary access road is currently paved through an easement on the adjacent parcel, but would require grading and paving within the Site. An emergency access road is proposed that passes through the east end of the Site, through avocado orchards and vineyards, to Orcutt Road via Avocado Lane. The emergency access road would be a 20 foot wide all-weather road.

1.2 Responsible Parties

TABLE 1. RESPONSIBLE PARTIES. Property owner, agent, biological consultant, and lead agency are provided.

Property Owner (Applicant)	Agent
Righetti Brothers, LLC 4750 Righetti Road San Luis Obispo, CA 93401	Wallace Group 612 Clarion Ct. San Luis Obispo, CA 93401 (805) 544-4011 Contact: Jeremy Freund
Biological Consultant	**Lead Agency**
Althouse and Meade, Inc. 1875 Wellsona Road Paso Robles, CA 93446 (805) 467-1041 Contact: Daniel E. Meade, Ph.D.	County of San Luis Obispo Department of Planning & Building County Government Center San Luis Obispo, CA 93408 (805) 781-5198

2.0 Methods

The 85-acre Site was surveyed for biological resources on May 25, June 2, June 27, and July 25, 2005, and on August 26 and December 2, 2008 (Table 2). Althouse and Meade, Inc. biologists Daniel E. Meade, Ph.D., Jason Dart, and David Lee conducted the surveys in 2005, and Jason Dart conducted the 2008 update surveys. Field surveys were conducted on foot in order to compile species lists, to search for special status plants and animals, and to photograph the Site. Each habitat type at the Site was inspected, described, and catalogued. All plant and animal species observed were identified and recorded.

Identification of botanical resources included field observations and laboratory analysis of collected material. A list of all plant species identified at the Site is provided (Section 3.4, Table 3). Floristic surveys were conducted in May, June, and July 2005, with some additional species added during the late summer survey in 2008. Floristic surveys were conducted in 2005 according to agency guidelines (United States Fish and Wildlife 2000 and California Department of Fish and Game 2000). Botanical nomenclature follows the Jepson Manual, unless otherwise noted. Some plant collections will be deposited in the R. F. Hoover Herbarium at Cal Poly.

Wildlife documentation included observations of animal presence, nests, tracks, and sign. Birds were identified by sight, using 10 power binoculars, or by vocalizations. Mammals were detected by direct observation and by sign. Reptiles and amphibians were identified by calls and by direct observation using binoculars. Fish were identified visually using

binoculars. A list of wildlife species that could be present at the Site is annotated with checkmarks indicating all species detected (refer to Section 3.5, Table 4).

We conducted a search of the California Natural Diversity Database (CNDDB August 2, 2008 data) and the California Native Plant Society (CNPS) On-line Inventory of Rare and Endangered Plants of California for special status species known to occur within five miles of the project site. The search area included the Twitchell Dam, Santa Maria, Tepesquet Canyon, Chimney Canyon, Huasna Peak, and Nipomo quadrangles (7.5 minute USGS).

Additional special status species research consisted of reviewing previous biological reports for the area and searching on-line museum and herbarium specimen records for locality data within San Luis Obispo County. We reviewed online databases of specimen records maintained by the Museum of Vertebrate Zoology (MVZ) at the University of California, Berkeley, and the Consortium of California Herbaria. Additional special status species with potential to occur on or near the Site were added to our special status species list.

Special status species lists produced by database and literature searches were cross-referenced with the known habitat types at the Site to identify all potential special status species that could occur on or near the project site. Each special status species with a potential for occurrence on or near the Site is individually discussed. A report was made to the CNDDB if special status species were found during our surveys (Appendix B).

TABLE 2. BIOLOGICAL SURVEYS. Survey dates, times, weather observations, and biologist are provided.

Survey Date	Start Time Stop Time	Temp.	Wind	Weather Observations	Biologist
May 25, 2005	8:15 a.m. to 10:00 a.m.	60 °F	0	100% foggy	J. Dart
June 2, 2005	9:30 a.m. to 1:30 p.m.	75 °F	0-5 mph/SW	60% foggy and clearing	D. Lee
June 27, 2005	8:30 a.m. to 11:00 a.m.	68 °F	0	100% foggy	J. Dart D. Lee
July 25, 2005	3:00 p.m. to 4:30 p.m.	78 °F	0-5 mph/S	Sunny and warm	D. Meade
August 26, 2008	5:30 p.m. to 6:30 p.m.	68 °F	0-5 mph	Sunny and clear	J. Dart
December 2, 2008	8:15 a.m. to 9:45 a.m.	64 °F	0-5 mph	Overcast and cool	J. Dart

3.0 Results

3.1 Existing Conditions

Located in a rural portion of San Luis Obispo County, southeast of the City of San Luis Obispo, the 85-acre project site is an annual grassland habitat with two drainages, wetlands, and rock outcrops. Topography of the Site is characterized by mildly rolling hills with meandering drainageways. Grasslands comprise more than 90 percent of the Site. Rangeland conditions are generally poor, with a history of heavy grazing attributed to an increase in noxious weeds such as medusahead, and a reduction in native forbs. In 2008 the Site was not grazed and native forbs and bunchgrasses were observed to be more common than in 2005.

The main drainage at the Site is dominated by a tall canopy of mature sycamore trees. Two forks that sustain mostly seasonal flows converge to form a larger, perennial stream near the southeastern border of the Site. Bedrock outcroppings are occasionally present in the drainage, creating pool habitat suitable for amphibians, turtles, and fish.

West of the main drainage, in the center of the Site, is a secondary drainage that conveys run-off through the property. The drainage is mostly a grassy swale with a few patches of willow habitat. Several small willow shrubs mark the location of a subsurface spring in the middle of the drainage just downstream from an agricultural road crossing. Above the spring and road crossing is a small patch of willow. The remainder of the drainage is a grassy swale with a one foot wide erosion channel and no riparian or wetland characteristics. Wetland conditions begin at the spring and continue intermittently to the southern project boundary.

Rock outcrops are exposed on hilltops in several areas of the Site. The largest outcrop is located on top of the tallest hill at the western end of the Site. Ground squirrels and cattle have disturbed much of the vegetation around the outcrop. Whitewash observed on the outcrop is indicative of raptors perching on the outcrop. Two special status plants, Cambria morning glory and Obispo Indian paintbrush, were observed in grassland habitat near rock outcrops in 2005. Cambria morning glory is often present in clay soils of serpentine origin. Serpentine rock is a dominant feature of the hillsides north of the Site. The outcrops on the property may have some serpentinite characteristics, although no true serpentine endemic plant species were present.

3.2 Soils

The U.S. Department of Agriculture map in the Soil Survey of San Luis Obispo County, California, Coastal Part (USDA, 1984), maps two soil types in the project site: Los Osos-Diablo complex, 5 to 9 percent slopes (162) and Salinas silty clay loam, 0 to 2 percent slopes (197).

The majority of the property consists of Los Osos-Diablo complex, with five to nine percent slopes (162). This soil type is found in the northern portion of the property. The complex consists of approximately 35 percent Los Osos soil and 30 percent Diablo soil. The Diablo soil differs from the Los Osos soil by being deep and having a clay texture throughout. Thirty-five percent of this complex includes areas of soils that are similar to Los Osos soils but are deeper or are underlain by harder rock. The Los Osos soil is

moderately deep and well drained. Permeability of the Los Osos soil is slow, and the available water capacity is low or moderate. Surface runoff is medium, and the hazard of water erosion is moderate. The Diablo soil is deep and well drained. Permeability of the Diablo soil is slow and the available water capacity is moderate to very high. Surface runoff is medium and the hazard of water erosion is slight. Both the Los Osos and Diablo soils in this complex are in capability units IIIe-3 (15), irrigated and non-irrigated.

Salinas silty clay loam, with zero to two percent slopes (197) is present in the southern end of the project site, encompassing the riparian corridor. This soil is very deep and well drained, with a moderately slow permeability and high or very high available water capacity. Salinas silty clay loam is well suited to farming and has no limitations or hazards.

The proposed southern access road crosses five soil types: Diablo clay, five to nine percent slopes (129), Los Osos-Diablo complex, five to nine percent slopes (162, described above), Los-Osos-Diablo complex, nine to 15 percent slopes (163), Los Osos-Diablo complex, 15 to 30 percent slopes (164) and Salinas silty clay loam, with zero to two percent slopes (197, described above).

Diablo clay, five to nine percent slopes (129), is a deep, well drained soil on low lying foothills. Permeability in the Diablo soil is slow and the available water capacity is moderate to very high. Surface run-off is medium and the hazard of water erosion is slight or moderate. This soil is in capability units IIe-5 (15), irrigated, and IIIe-5 (15), non-irrigated.

Los Osos-Diablo complex, nine to fifteen percent slopes (163) is very similar to the Los Osos-Diablo complex, five to nine percent slopes (162). However, the Diablo soil in this map unit has a moderate hazard of water erosion due to the steeper slopes (as compared to a slight hazard in map unit 162).

Los Osos-Diablo complex, with fifteen to thirty percent slopes (164) are moderately steep soils on foothills and mountains. Included in is complex are small areas of Rock outcrop, Cibo clay, Gazos and Lodo clay loams, and Lompico and McMullin loams. The Los Osos and Diablo soils in this complex are in capability unit IVe-1 (15), non-irrigated. Land capability IVe soils have "very severe" limitations on the type of agricultural crops grown there, due to the risk of erosion. These soils are not suited for most row crops and other forms of intensive agriculture.

3.3 Habitat Types

Four habitat types occur on the Site: California annual grassland, riparian, wetland, and ruderal. Grassland habitat comprises the majority of the acreage within the Site. Riparian and wetland habitats are restricted to drainageways, with one state wetland area located on a slope in grassland habitat. Ruderal areas are located along the west access road.

3.3.1 California annual grassland

Grasslands at the Site are dominated by naturalized Mediterranean annual species that are common components of annual grasslands in San Luis Obispo County and elsewhere in California. Soft chess brome (*Bromus hordeaceus*), ripgut brome (*Bromus diandrus*), wild oats (*Avena fatua, A. barbata*), and foxtail barley (*Hordeum murinum*) are the

dominant grass species. Medusahead (*Taeniatherum caput-medusae*) is an invasive grass species that has long awns. Medusahead is only known from a few locations within San Luis Obispo County, including the project site (Royce Larsen, Watershed Advisor, University of California Cooperative Extension, pers. comm. 2005). Purple needlegrass (*Nassella pulchra*) is a native perennial bunchgrass that occurs in grassland areas of the Site. It occurs in patches where conditions are favorable. The most notable areas of occurrence are in the northwestern corner of the Site in the vicinity of the proposed project. Bunchgrasses are not present in areas large enough or sufficient density to qualify as Valley Needlegrass Grassland, a sensitive natural community type (refer to discussion in Section 3.6.7). Forb diversity is generally low in the grassland habitat, although the species that do occur are often abundant. Tarweeds (*Hemizonia congesta* ssp. *luzulifolia*, *Deinandra increscens* ssp. *increscens*) are particularly abundant, and fiddle dock (*Rumex pulcher*), bindweed (*Convolvulus arvensis*), and Western ragweed (*Ambrosia psilostachya*) are also common.

Two special status plant species were identified and mapped in the grassland habitat: Cambria morning glory (*Calystegia subacaulis* ssp. *episcopalis*) and Obispo Indian paintbrush (*Castilleja densiflora* ssp. *obispoensis*). Mapped locations of special status plants indicated on the Biological Resource Map are from 2005 surveys (refer to Section 7.0).

3.3.2 Riparian

Two drainages pass through the Site, draining storm run-off from steep hills to the northeast. The drainages flow in a westerly direction through the City of San Luis Obispo, past the Tank Farm area, to San Luis Creek. The main drainage at the Site contains the only mature riparian habitat in the project area. It is a perennial stream with a mature canopy of Western sycamore (*Platanus racemosa*) trees. In some years flows are seasonal, but pools are expected to be permanent in some areas. The sycamores are 30 to 60 feet high and up to approximately 40 inches in diameter at breast height (dbh). They provide partial shade to the stream and create root tangles on the banks that are used for cover by aquatic organisms. The riparian understory is mostly open with occasional shrubs, including arroyo willow (*Salix lasiolepis*), red willow (*S. laevigata*), California blackberry (*Rubus ursinus*), poison oak (*Toxicodendron diversilobum*) and coyote brush (*Baccharis pilularis*). Approximately 12 mature coast live oak trees (*Quercus agrifolia*) up to 40 inches in diameter and up to 50 feet high are located in the southern portion of the drainage.

Surface flow had ceased by June 27, 2005, but was perennial in 2008 downstream of the confluence of the two forks. In 2005 standing pools of water were present that had depths of more than two feet. Adult and larval bullfrogs (*Rana catesbeiana*), mosquito fish (*Gambusia affinis*), and Pacific tree frogs (*Pseudacris regilla)* were observed in pool habitat in May 2005. Three-spine stickleback (*Gasterosteus aculeatus*), a small native freshwater fish, was observed in the stream in 2008. Appropriate habitat is present for the California red-legged frog (*Rana aurora draytonii*), a federally threatened species. Bullfrogs and mosquito fish are introduced species that feed on red-legged frogs, their larvae, and eggs. Birds observed in and around the drainage included black phoebe, Western kingbird, bushtit, American kestrel, cliff swallow, hairy woodpecker, house finch, and Brewer's blackbird. No special status plants or animals were found in the main drainage.

3.3.3 Wetland

Wetland conditions at the Site are restricted to the drainages, with the exception of a small area of one-indicator state wetland at the head of a grassy swale. The bottom of the main riparian drainage, within the ordinary high water mark (OHWM) is wetland. The bottom of the secondary drainage in the center of the Site has wetland inclusions from the vicinity of the willow shrubs to the southern boundary of the Site. The dominant wetland indicator species in the secondary drainage are spikerush (*Eleocharis macrostachya*) and brown-headed rush (*Juncus phaeocephalus*). In perennial waters of the main drainage stands of cattails (*Typha angustifolia*) are common.

The secondary drainage is an ephemeral waterway within a small incised channel supporting patches of wetland vegetation below the ordinary high water mark. There was no surface flow in May 2005, or in August or December 2008. Shallow isolated pools in wetland areas were present into early June 2005.

Several un-named drainage swales are present east of the Site where an agricultural road would be improved for access to the residential lots. Wetlands may be present in these drainages. Culverts are present at all agricultural road crossings.

A wetland delineation of the Site was conducted by Althouse and Meade, Inc. (July 2005). Jurisdictional areas were mapped by Althouse and Meade, Inc. based on analysis of vegetation, hydrology, and soils. Wetlands and drainages at the Site contain federal wetlands and waters of the United States. Drainages east of the Site were not included in the wetland delineation.

3.3.4 Ruderal

Ruderal habitat occurs along the paved west access road to the Site. The margins of the road are dominated by a variety of annual and weedy plant species, native and non-native. These include ripgut brome, English plantain (*Plantago lanceolata*), fennel (*Foeniculum vulgare*), black mustard (*Brassica nigra*), wild oats, and red-stem filaree (*Erodium cicutarium*). Mayweed (*Anthemis cotula*) was blooming on the roadsides and in mesic areas in the spring of 2005. Tracks and sign of both coyote and bobcat were noted along the road. Birds observed included Brewer's blackbird, red-tailed hawk, American crow, and Western meadowlark. A single loggerhead shrike, a Species of Special Concern, was observed perched on a power line along the road in 2005.

3.4 Plant List

The 91 species of plants identified at the Site consist of 38 native species, and 52 introduced species, and one planted species (Table 3). Two special status species were mapped at the Site (refer to Biological Constraints Map in Section 7.0). This list was compiled primarily during site visits in May and June 2005 which were appropriately timed to identify potential special status plants that are known to occur in the area. Some additional plant species were added to the list during our surveys late August and September 2008.

The special status column indicates the listing status of each plant under the Federal Endangered Species Act (FESA), the California Endangered Species Act (CESA), the California Native Plant Society (CNPS), or as a local species of concern. Refer to

Section 3.6 for more information on special status species designations, and to Appendix A for special status code definitions.

TABLE 3. PLANT LIST. Ninety-one species of plants were identified at the Site during botanical surveys in 2005 and 2008. Plants are listed alphabetically by scientific name within each of four general groups (trees, shrubs, herbs, and grasses).

Scientific Name	Special Status	Origin	Common Name
Trees - 5 species			
Eucalyptus globulus	None	Planted	Blue gum
Platanus racemosa	None	Native	California sycamore
Quercus agrifolia	None	Native	Coast live oak
Salix laevigata	None	Native	Red willow
Salix lasiolepis	None	Native	Arroyo willow
Shrubs - 4 species			
Baccharis pilularis	None	Native	Coyote bush
Rhamnus californica	None	Native	Coffeeberry
Rubus ursinus	None	Native	California blackberry
Toxicodendron diversilobum	None	Native	Poison oak
Herbs - 63 species			
Achyrachaena mollis	None	Native	Blow-wives
Ambrosia psilostachya	None	Native	Western ragweed
Anagallis arvensis	None	Introduced	Scarlet pimpernel
Anthemis cotula	None	Introduced	Mayweed
Anthriscus caucalis	None	Introduced	Bur-chervil
Baccharis pilularis	None	Native	Coyote bush
Bellardia trixago	None	Introduced	Mediterranean lineseed
Brassica nigra	None	Introduced	Black mustard
Calystegia subacaulis ssp. *episcopalis*	List 1B.2	Native	Cambria morning glory
Carduus pycnocephalus	None	Introduced	Italian thistle
Castilleja densiflora ssp. *obispoensis*	List 1B.2	Native	Obispo Indian paintbrush
Centaurea melitensis	None	Introduced	Yellow star thistle
Chenopodium californicum	None	Native	California goosefoot
Cirsium vulgare	None	Introduced	Bull thistle
Convolvulus arvensis	None	Introduced	Field bindweed
Cyperus eragrostis	None	Native	Umbrella sedge

Scientific Name	Special Status	Origin	Common Name
Deinandra increscens ssp. *increscens*	None	Native	Tarweed
Eleocharis macrostachya	None	Native	Spikeweed
Epilobium brachycarpum	None	Native	Annual willow-herb
Epilobium canum	None	Native	California fuschia
Epilobium ciliatum	None	Native	Willow herb
Erodium cicutarium	None	Introduced	Redstem filaree
Filago gallica	None	Introduced	Cottonrose
Foeniculum vulgare	None	Introduced	Fennel
Gnaphalium palustre	None	Introduced	Marsh cudweed
Hemizonia congesta ssp. *luzulifolia*	None	Native	Hayfield tarweed
Hemizonia sp.	None	Native	Tarweed
Heterotheca grandiflora	None	Native	Telegraph weed
Hypochaeris radicata	None	Introduced	Rough cat's-ear
Juncus bufonius	None	Native	Toadrush
Juncus phaeocephalus	None	Native	Brown-headed rush
Lactuca serriola	None	Introduced	Prickly lettuce
Lamarckia aurea	None	Introduced	Goldentop
Lemna sp.	None	Native	Duckweed
Lotus corniculatus	None	Introduced	Birdfoot trefoil
Lotus humistratus	None	Native	Bird-foot lotus
Lythrum hyssopifolium	None	Introduced	Loosestrife
Medicago polymorpha	None	Introduced	Common bur-clover
Melilotus alba	None	Introduced	White sweet clover
Melilotus indica	None	Introduced	Annual sweetclover
Mimulus guttatus	None	Native	Stream monkeyflower
Nasturtium officinale	None	Native	Common watercress
Oxalis corniculata	None	Introduced	Yellow wood sorrel
Picris echioides	None	Introduced	Bristly ox-tongue
Plantago lanceolata	None	Introduced	English plantain
Plantago major	None	Introduced	Common plantain
Polygonum arenastrum	None	Introduced	Common knotweed
Ranunculus californicus	None	Native	California buttercup
Rumex crispus	None	Introduced	Curly dock
Rumex pulcher	None	Native	Fiddle dock
Scirpus cernuus	None	Native	California clubrush

Scientific Name	Special Status	Origin	Common Name
Silene gallica	None	Introduced	Windmill pink
Silybum marianum	None	Introduced	Milk thistle
Sisymbrium irio	None	Introduced	London rocket
Sonchus asper ssp. *asper*	None	Introduced	Prickly sow-thistle
Sonchus oleraceus	None	Introduced	Common sow-thistle
Stephanomeria virgata	None	Native	Wire-lettuce
Trifolium hirtum	None	Introduced	Rose clover
Typha angustifolia	None	Native	Narrow-leaved cattail
Verbena lasiostachys	None	Native	Verbena
Veronica anagallis-aquatica	None	Native	Water speedwell
Vicia sativa	None	Introduced	Vetch
Vicia villosa ssp. *varia*	None	Introduced	Hairy vetch, winter vetch
Grasses - 19 Species			
Avena barbata	None	Introduced	Slender wild oat
Avena fatua	None	Introduced	Wild oat
Brachypodium distachyon	None	Introduced	False brome
Briza minor	None	Introduced	Quaking grass
Bromus diandrus	None	Introduced	Ripgut brome
Bromus hordeaceus	None	Introduced	Soft chess brome
Crypsis schoenoides	None	Introduced	Swamp grass
Cynodon dactylon	None	Introduced	Bermuda grass
Distichlis spicata	None	Native	Salt grass
Hordeum marinum	None	Introduced	Mediterranean barley
Hordeum murinum	None	Introduced	Foxtail barley
Hordeum vulgare	None	Introduced	Barley
Lolium multiflorum	None	Introduced	Italian ryegrass
Nassella pulchra	None	Native	Purple needlegrass
Phalaris aquatica	None	Introduced	Harding grass
Polypogon interruptus	None	Introduced	Ditch beardgrass
Polypogon monspeliensis	None	Introduced	Annual beardgrass
Taeniatherum caput-medusae	None	Introduced	Medusahead
Vulpia myuros	None	Introduced	Annual fescue

3.5 Wildlife List

Wildlife that could occur at the Site includes more than 109 species, including birds, small and medium-sized mammals, reptiles, fish, and amphibians. Several rodent species (e.g. California vole, California mouse, deer mouse) are expected to be residents at the Site; however no trapping was conducted as part of this study. The open grasslands provide foraging habitat for raptors and mammals including red-tail hawk, American kestrel, bobcat, and coyote. Common reptiles and amphibians such as Western fence lizard, Pacific chorus frog, and alligator lizard are expected to occur. Three birds listed as Species of Special Concern (SSC) were observed at the Site. Appropriate nesting habitat is present for two of these species; however neither species was confirmed nesting at the Site (refer to Section 3.6).

TABLE 4. WILDLIFE LIST. More than 109 animal species have the potential to occur at the Site. The Special status column indicates listing status of the organism under the Federal Endangered Species Act, the State Endangered Species Act, or by the CDFG (see Appendix A for status definitions). Species observed at the Site during our surveys are designated by the check symbol (✓) in the fourth column.

Common Name	Scientific Name	Special Status[1]	Found at the Site	Typical Habitat Type(s)
Fish – 2 species				
Mosquito Fish	*Gambusia affinis*	None	✓	Rivers, creeks, lakes, ponds
Three-spine Stickleback	*Gasterosteus aculeatus*	None	✓	Rivers, creeks, lakes, ponds
Amphibians – 6 species				
Black-bellied Slender Salamander	*Batrachoseps nigriventris*	None		Oak woodlands, moist areas
Western Toad	*Bufo boreas*	None		Grassland, woodland
Pacific Chorus Frog	*Pseudacris regilla*	None	✓	Many habitats near water
Bullfrog	*Rana catesbeiana*	None	✓	Ponds, streams, creeks
California Red-legged Frog	*Rana aurora draytonii*	FT[2]		Ponds, streams, creeks
Coast Range Newt	*Taricha torosa torosa*	SSC[3]		Slow moving streams, creeks
Reptiles – 10 species				
Southwestern Pond Turtle	*Actinemys marmorata pallida*	SSC		Lakes, ponds, streams
Western Yellow-bellied Racer	*Coluber constrictor mormon*	None		Grasslands, open areas

[1] Special status designations for birds may be specific to nesting or wintering sites (as noted), or may protect the species throughout the year (no specific designation).

[2] FT = Federally listed Threatened

[3] SSC = CDFG designation for Species of Special Concern

Common Name	Scientific Name	Special Status[1]	Found at the Site	Typical Habitat Type(s)
Monterey Ringneck Snake	*Diadophis punctatus vandenburgii*	None		Woodlands, grasslands, chaparral
Western Skink	*Eumeces skiltonianus skiltonianus*	None		Woodland, grassland, chaparral
California Alligator Lizard	*Elgaria multicarinata multicarinata*	None	✓	Open grassland, woodland, chaparral
California Kingsnake	*Lampropeltis getula californiae*	None		Woodland, grassland, streams
Gopher Snake	*Pituophis melanoleucus*	None		Woodland, grassland
Western Fence Lizard	*Sceloporus occidentalis*	None	✓	Wide range
Valley Garter Snake	*Thamnophis sirtalis fitchii*	None		Many habitats near water
Side-blotched Lizard	*Uta stansburiana*	None		Many dry habitats
Birds – 68 species				
Cooper's Hawk	*Accipiter cooperii*	Special Animal[4]		Oak, riparian woodland
Sharp-shinned Hawk	*Accipiter striatus*	Special Animal	✓ (Wintering)	Oak, riparian woodland
Red-winged Blackbird	*Agelaius phoeniceus*	None	✓	Marshes, fields
Grasshopper Sparrow	*Ammodramus savannarum*	SSC (Nesting)		Grasslands
Mallard	*Anas platyrhyncos*	None		Aquatic habitats
American Pipit	*Anthus rubescens*	None	✓	Fields, beaches, etc.
Western Scrub Jay	*Aphelocoma californica*	None		Oak and riparian woodlands
Great Blue Heron	*Ardea herodias*	SSC (Rookery Site)		Water habitats
Cedar Waxwing	*Bombycella cedrorum*	None		Variety habitats with berry source
Great Horned Owl	*Bubo virginianus*	None		Varied habitats
Red-tailed Hawk	*Buteo jamaicensis*	None	✓	Open, semi-open country
Red-shouldered Hawk	*Buteo lineatus*	None		Oak and riparian woodlands
California Quail	*Callipepla californica*	None		Oak, riparian woodlands
Anna's Hummingbird	*Calypte anna*	None		Oak, riparian woodland, scrub

[4] Special Animal refers to all of the animal taxa inventoried by the CNDDB, regardless of their legal or protection status. Refer to discussion of Special Animals in Section 3.5.2.

Common Name	Scientific Name	Special Status[1]	Found at the Site	Typical Habitat Type(s)
Lesser Goldfinch	*Carduelis psaltria*	None	✓	Riparian, oak woodlands
American Goldfinch	*Carduelis tristis*	None		Weedy fields, woodlands
House Finch	*Carpodacus mexicanus*	None	✓	Wide habitat range
Purple Finch	*Carpodacus purpureus*	None		Woodlands, urban areas
Turkey Vulture	*Cathartes aura*	None	✓	Open country, oak woodlands
Killdeer	*Charadrius vociferous*	None		Mud flats, stream banks
Northern Flicker	*Colaptes auratus*	None		Woodlands
Rock Dove	*Columba livia*	None	✓	Urban areas
American Crow	*Corvus brachyrhynchos*	None	✓	Open oak, riparian woodland,
Yellow-rumped Warbler	*Dendroica coronata*	None		Riparian, oak woodlands
Pacific-slope Flycatcher	*Empidonax difficilis*	None		Riparian, oak woodlands
California Horned Lark	*Eremophila alpestris actia*	SSC	✓	Short grass habitats.
Brewer's Blackbird	*Euphagus cyanocephalus*	None	✓	Open habitats
Peregrine Falcon	*Falco peregrina*	SE[5]		Open habitats, nests on cliffs
American Kestrel	*Falco sparverius*	None	✓	Open, semi-open country
Barn Swallow	*Hirundo rustica*	None	✓	Open country, farmyards
Bullock's Oriole	*Icterus bullockii*	None		Variety of habitats with trees and nectar source
Loggerhead Shrike	*Lanius ludovicianus*	SSC	✓	Open habitats, shrubs, grasslands
Song Sparrow	*Melospiza melodia*	None		Oak and Riparian woodland
Northern Mockingbird	*Mimus polyglottos*	None	✓	Riparian, chaparral and woodlands
Western Screech-owl	*Otus kennicottii*	None		Oak woodlands
House Sparrow	*Passer domesticus*	None		Urban
Savannah Sparrow	*Passerculus sandwichensis*	None	✓	Open habitats, marshes, grasslands
Lazuli Bunting	*Passerina amoena*	None		Mixed woodlands, chaparral
Blue Grosbeak	*Passerina caerulea*	None		Woodland edges, streams
Cliff Swallow	*Petrochelidon pyrrhonota*	None	✓	Urban; open areas near water
Nuttall's Woodpecker	*Picoides nuttallii*	Special Animal (Nesting)		Oak woodland, savanna

[5] SE = State listed Endangered. Peregrine Falcons have been de-listed federally

Common Name	Scientific Name	Special Status[1]	Found at the Site	Typical Habitat Type(s)
Downy Woodpecker	*Picoides pubescens*	None		Oak, riparian woodlands
Hairy Woodpecker	*Picoides villosus*	None	✓	Oak, riparian woodlands
California Towhee	*Pipilo crissalis*	None		Brushy habitats
Spotted Towhee	*Pipilo erythrophthalmus*	None		Dense brushy areas
Chestnut-backed Chickadee	*Poecile hudsonica*	None		Mixed woods
Purple Martin	*Progne subis*	SSC		Sycamore riparian habitat
Bushtit	*Psaltriparus minimus*	None	✓	Oak, riparian, chaparral, scrub
Ruby-crowned Kinglet	*Regulus calundula*	None		Oak and riparian woodlands
Black Phoebe	*Sayornis nigricans*	None	✓	Near water
Say's Phoebe	*Sayornis saya*	None	✓	Open country, grassland
Allen's Hummingbird	*Selasphorus sasin*	None		Riparian, eucalyptus, oak woodlands
Western Bluebird	*Sialia mexicana*	None		Riparian woodland, ranch land
Northern Rough-winged Swallow	*Stelgidopteryx serripennis*	None		Riparian, lakes
Western Meadowlark	*Sturnella neglecta*	None	✓	Grasslands
European Starling	*Sturnus vulgaris*	None	✓	Agricultural, urban
Tree Swallow	*Tachycineta bicolor*	None		Wooded habitats, water
Violet-green Swallow	*Tachycineta thalassina*	None		Woodland habitats
Bewick's Wren	*Thryomanes bewickii*	None		Shrubby areas
House Wren	*Troglodytes aedon*	None		Shrubby areas
American Robin	*Turdus migratorius*	None		Streamsides, woodlands
Western Kingbird	*Tyrannus verticalis*	None	✓	Nests in trees, hunts in grasslands
Barn Owl	*Tyto alba*	None		Agricultural, woodlands
Orange-crowned Warbler	*Vermivora celata*	None		Oak, riparian woodlands
Wilson's Warbler	*Wilsonia pusilla*	None		Oak, riparian woodlands
Mourning Dove	*Zenaida macroura*	None	✓	Open and semi-open area
Golden-crowned Sparrow	*Zonotrichia atricapilla*	None		Shrubby, weedy areas
White-crowned Sparrow	*Zonotrichia leucophrys*	None		Shrubby, weedy areas
Mammals – 23 species				
Coyote	*Canis latrans*	None	✓	Open woodlands, brushy areas, wide ranging

Common Name	Scientific Name	Special Status[1]	Found at the Site	Typical Habitat Type(s)
Opossum	*Didelphis marsupialis*	None		Woodlands, streams
Western Mastiff Bat	*Eumops perotis californicus*	SSC		Roosts in cliffs, buildings, trees, and tunnels
Feral Cat	*Felis catus*	None		Varied
Black-tailed Jackrabbit	*Lepus californicus*	None		Grasslands
Bobcat	*Lynx rufus*	None	✓	Chaparral and woodlands
Striped Skunk	*Mephitis mephitis*	None		Mixed woods, chaparral
California Vole	*Microtus californicus*	None		Grassland meadows
Long-tailed Weasel	*Mustela frenata*	None		Grasslands
California Myotis	*Myotis californicus*	None		Tunnels, hollow trees, crevices
Mule Deer	*Odocoileus hemionus*	None	✓	Many habitats
California Mouse	*Peromyscus californicus*	None		Oak woodland, chaparral
Deer Mouse	*Peromyscus maniculatus*	None		All dry land habitats
Raccoon	*Procyon lotor*	None		Streams, lakes, rock cliffs, dens in trees
Mountain Lion	*Puma concolor*	Specially Protected Species		Woodlands
Western Harvest Mouse	*Reithodontomys megalotis*	None		Grassland, dense vegetation near water
California Ground Squirrel	*Spermophilus beecheyi*	None	✓	Grasslands
Desert Cottontail	*Sylvilagus audubonii*	None		Brushy areas
American Badger	*Taxidea taxus*	SSC		Open grasslands
Valley Pocket Gopher	*Thomomys bottae*	None		Variety of habitats
Black Bear	*Ursus americanus*	None		Woods
Red Fox	*Vulpes fulva*	None		Forest and open country
Gray Fox	*Urocyon cinereoargenteus*	None		Chaparral, dry woodlands

3.6 Special Status Plants and Animals

The CNDDB and the CNPS On-line Inventory of Rare and Endangered Plants of California contain records for 70 special status species (Tables 5 and 6) and five sensitive natural communities (Table 7) within the designated search area. The search area includes the San Luis Obispo, Lopez Mountain, Pismo Beach, and Arroyo Grande NE USGS 7.5 minute quadrangles. Additional special status species and sensitive natural community types were added to the lists from our knowledge of the area. Those species and communities not listed in the CNDDB or CNPS are marked with an asterisk (*).

Appropriate soil and habitat conditions are present on the Site for six special status plants and 14 special status animals. Two special status plants and two special status animals were detected at the Site during our surveys in 2005 and 2008. For some avian species, observations were made of wintering or migrating individuals where nesting is not expected to occur at the Site (a requirement of their listing status). Detailed information is provided in Sections 3.6.6 and 3.6.7 for potential special status species listed in Tables 5 and 6. A Biological Constraints Map is provided in Section 7.0. The current GIS data from the CNDDB for special status species occurrences reported near the Site is included as Figure 5 in Section 8.0.

3.6.1 Introduction to CNPS lists

Plant species are considered rare when their distribution is confined to localized areas, when there is a threat to their habitat, when they are declining in abundance, or are threatened in a portion of their range. The listing categories range from species with a low threat (List 4) to species that are presumed extinct (List 1A). The 1074 plants of List 1B are rare throughout their range. All but a few species are endemic to California. All of them are judged to be vulnerable under present circumstances, or to have a high potential for becoming vulnerable. For an explanation of the CNPS listing scheme and CNDDB status codes, see Appendix A.

3.6.2 Introduction to CNDDB definitions

"Special plants" is a broad term used to refer to all the plant taxa inventoried by the CNDDB, regardless of their legal or protection status. Special plants include vascular plants and high priority bryophytes (mosses, liverworts, and hornworts).

"Special Animals" is a general term that refers to all of the animal taxa inventoried by the CNDDB, regardless of their legal or protection status. These taxa may be listed or proposed for listing under the State and/or Federal Endangered Species Acts, but they may also be species deemed biologically rare, restricted in range, declining in abundance, or otherwise vulnerable.

Animals listed as California Species of Special Concern (SSC) are considered rare or declining in abundance. The Special Concern designation is intended to provide the Department of Fish and Game, consulting biologists, land planners and managers with lists of species that require special consideration during the planning process in order to avert continued population declines and potential costly listing under federal and state endangered species laws. For most animal taxa, the CNDDB is interested in information that indicates the presence of a resident population. For many birds, however, the CNDDB tracks only nesting locations. For birds, and other taxa where only a certain part of their range or life history are tracked, the area or life stage is indicated in the table.

"DFG: Fully Protected" is the State's effort to identify and provide additional protection to those animals that are rare or face possible extinction. The Fish and Game Code Sections 4700 and 5050 dealing with Fully Protected species states that these species "...may not be taken or possessed at any time and no provision of this code ore any other law shall be construed to authorize the issuance of permits or licenses to take any 'fully protected' species, although take may be authorized for necessary scientific research." This language arguably makes the "Fully Protected" designation the strongest and most restrictive regarding the "take" of these species. In 2003 the code sections dealing with fully protected species were amended to allow the Department to authorize take resulting from recovery activities for state-listed species.

With the passage of Proposition 117 in 1990, mountain lions became a "specially protected species," making mountain lion hunting illegal in California. This status and other statutes prohibit the Department of Fish and Game from recommending a hunting season for lions, and it is illegal to take, injure, possess, transport, import, or sell any mountain lion or part of a mountain lion. Mountain lions may be killed only 1) if a depredation permit is issued to take a specific lion killing livestock or pets; 2) to preserve public safety; or 3) to protect listed bighorn sheep.

3.6.3 Special status species list

Tables 5, 6, and 7 list all 73 special status species and the six sensitive natural communities reported or expected to occur in the vicinity of the project site. Federal and state status, global and state rank, CNPS listing status (plants), and CDFG designation (animals) for each species are given. Typical blooming period, habitat preference, potential habitat on site, whether or not the species was observed at the Site, and the effect of the proposed activity are also provided.

TABLE 5. SPECIAL STATUS PLANT LIST. Forty-two special status plants species are reported from the San Luis Obispo, Lopez Mountain, Pismo Beach, and Arroyo Grande NE quadrangles. Of the six special status plant species that could potentially occur at the Site, two species were detected in the spring of 2008. Potential impacts are outlined in section 5.0, and mitigation recommendations are provided in section 6.0.

	Common and Scientific Names	Fed/State Status Global/State Rank CNPS List	Blooming Period	Habitat Preference	Potential Habitat?	Observed on Site?	Effect of Proposed Activity
				Plants			
1.	**Hoover's Bent Grass** *Agrostis hooveri*	None/none G3/S2.2 List 1B.2	April - July	Sandy soil in oak woodland habitat; <600 m. Endemic to SLO & SB Counties.	No. Appropriate habitat and soil types are not present at the Site.	No	Not Significant
2.	**Arroyo de la Cruz Manzanita** *Arctostaphylos cruzensis*	None/none G2/S2.2 List 1B.2	December - March	Sandy bluffs; <150 m. c CCo (s Monterey, nw SLO Counties)	No. Appropriate habitat and soil types are not present at the Site.	No	Not Significant
3.	**Santa Lucia Manzanita** *Arctostaphylos luciana*	None/none G2/S2.2 List 1B.2	February - March	Shale outcrops, slopes, chaparral, 500-700 m. Cuesta Pass, SLO County.	No. Appropriate habitat and soil types are not present at the Site.	No	Not Significant
4.	**Morro Manzanita** *Arctostaphylos morroensis*	Threatened/none G2/S2.2 List 1B.1	December - March	Sand dunes; <200 m. s CCo (Morro Bay, SLO County)	No. Appropriate habitat and soil types are not present at the Site.	No	Not Significant
5.	**Pecho Manzanita** *Arctostaphylos pechoensis*	None/none G2/S2.2 List 1B.2	November - March	Shale outcrops, chaparral, coniferous forest; <850 m. s CCo (Pecho Hills, SLO)	No. Appropriate shale outcrops are not present at the Site.	No	Not Significant
6.	**Santa Margarita Manzanita** *Arctostaphylos pilosula*	None/none G2/S2.2 List 1B.2	December - March	Shale outcrops, slopes, chaparral; 300-1100 m. s SCoRO Endemic to SLO County	No. Appropriate shale outcrops are not present at the Site.	No	Not Significant
7.	**Wells's Manzanita** *Arctostaphylos wellsii*	None/none G2/S2.1? List 1B.1	December - May	Sandstone outcrops in chaparral, oak woodland. <400 m. s CCo (hills se of San Luis Obispo)	No. Appropriate sandstone outcrops are not present at the Site.	No	Not Significant
8.	**Marsh Sandwort** *Arenaria paludicola*	Endangered/ Endangered G1/S1.1 List 1B.1	May - August	Boggy meadows, marshes <300 m. s CCo (Nipomo Mesa, SLO County, Santa Ana River, SCo)	No. Appropriate habitat is not present at the Site.	No	Not Significant

	Common and Scientific Names	Fed/State Status Global/State Rank CNPS List	Blooming Period	Habitat Preference	Potential Habitat?	Observed on Site?	Effect of Proposed Activity
9.	**Miles's Milk-vetch** *Astragalus didymocarpus* var. *milesianus*	None/none G5T2/S2.2 List 1B.2	March - June	Clay or serpentine soils in coastal scrub, grassy areas near coast. 0-90 m. Endemic to SLO County	Yes. Appropriate habitat may be present in grassland habitat at the Site.	No	Not Significant
10.	**La Panza Mariposa Lily** *Calochortus obispoensis*	None/none G2/S2.1 List 1B.2	May - July	Dry serpentine gen in chaparral; 100-500 m. SCoRO Endemic to SLO County	No. Appropriate soil and habitat types are not present at the Site.	No	Not Significant
11.	**San Luis Obispo Mariposa Lily** *Calochortus simulans*	None/none G2/S2.3 List 1B.3	April - May	Grassland, oak woodland & pine forest, on sand, granite, or serpentine; <1100 m. Endemic to SLO County	No. Appropriate soil types are not present at the Site.	No	Not Significant
12.	**Cambria Morning Glory** *Calystegia subacaulis* ssp. *episcopalis*	None/none G3T1/S1.2 List 1B.2	April - May	Dry, open scrub, woodland, or grassland; <500 m. c SCoRO Endemic to SLO County	Yes. Appropriate habitat is present at the Site.	Yes	Not Significant with Mitigation
13.	**San Luis Obispo Sedge** *Carex obispoensis*	None/none G2/S2.2 List 1B.2	April - June	Serpentine springs, stream sides; <600 m. Endemic to SLO County	No. Appropriate soil and habitat types are not present at the Site.	No	Not Significant
14.	**Obispo Indian Paintbrush** *Castilleja densiflora* ssp. *obispoensis*	None/none G5T2/S2.2 List 1B.2	April	Coastal grassland, <100 m. Endemic to SLO County.	Yes. Appropriate grassland habitat is present at the Site.	Yes	Not Significant with Mitigation
15.	**Congdon's Tarplant** *Centromadia parryi* ssp. *congdonii*	None/none G4?T1/S1.1 List 1B.2	May - November	Mesic grassland, open ground; <100 m. CW	Yes. Appropriate habitat is present at the Site.	No	Not Significant
16.	**Dwarf Soaproot** *Chlorogalum pomeridianum* var. *minus*	None/none G5T1/S1.2 List 1B.2	May - August	Serpentine outcrops in chaparral; gen <750 m. NCoRI, SnFrB, SCoRO	No. Appropriate soil and habitat types are not present at the Site.	No	Not Significant
17.	**Brewer's Spineflower** *Chorizanthe breweri*	None/none G2/S2.2 List 1B.3	May - August	Chaparral, foothill woodland on serpentine; <800 m. Endemic to SLO County	No. Appropriate soil and habitat types are not present at the Site.	No	Not Significant
18.	**Straight-awned Spineflower** *Chorizanthe rectispina*	None/none G1/S1.2 List 1B.3	May - July	Chaparral, dry woodland in sandy soil; 200-600 m. SCoRO	No. Appropriate soil and habitat types are not present at the Site.	No	Not Significant

	Common and Scientific Names	Fed/State Status Global/State Rank CNPS List	Blooming Period	Habitat Preference	Potential Habitat?	Observed on Site?	Effect of Proposed Activity
19.	**Chorro Creek Bog Thistle** *Cirsium fontinale* var. *obispoense*	Endangered G2T1/S1.2 List 1B.2	February - July	Serpentine seeps and streams; <300 m. c SCoRO Endemic to SLO County	No. Appropriate serpentine soils are not present at the Site.	No	Not Significant
20.	**Surf Thistle** *Cirsium rhothophilum*	None/Threatened G2/S2.2 List 1B.2	April - June	Dunes, bluffs; <20 m. s CCo (s SLO, n SB Counties)	No. Appropriate dune or coastal bluff habitat is not present at the Site.	No	Not Significant
21.	**Pismo Clarkia** *Clarkia speciosa* ssp. *immaculata*	Endangered/Rare G4T1/S1.1 List 1B.1	May - July	Sandy hills near coast; <100 m. s CCo (±Pismo to Edna, SLO County)	No. Appropriate habitat conditions are not present at the Site. Not known from the vicinity.	No	Not Significant
22.	**Leafy Tarplant** *Deinandra increscens* ssp. *foliosa*	None/none G4G5T2/S2.2 List 1B.2	June - September	Sandy soils in valley and foothill grassland; 300-500 m. s SCoR	No. Appropriate soils are not present at the Site.	No	Not Significant
23.	**Dune Larkspur** *Delphinium parryi* ssp. *blochmaniae*	None/none G4T3/S2.2 List 1B.2	April - May	Coastal chaparral, sand. 0-200 m. s CCo	No. Appropriate soil and habitat types are not present at the Site.	No	Not Significant
24.	**Beach Spectaclepod** *Dithyrea maritima*	None/Threatened G2/S2.1 List 1B.1	March - May	Sea shores, sandy soils on dunes near the shore; <50 m s CCo, SCo, Baja CA.	No. Appropriate habitat is not present at the Site.	No	Not Significant
25.	**Betty's Dudleya** *Dudleya abramsii* ssp. *bettinae*	None/none G3T1/S1.2 List 1B.2	May - July	Rocky outcrops in serpentine grassland; <50-180 m. Endemic to SLO County	No. Appropriate habitat and soil types are not present at the Site.	No	Not Significant
26.	**Mouse-Gray Dudleya** *Dudleya abramsii* ssp. *murina*	None/none G3T2/S2.3 List 1B.3	May - June	Serpentine outcrops; 120-300 m. Endemic to SLO County	No. Appropriate habitat and soil types are not present at the Site.	No	Not Significant
27.	**Blochman's Dudleya** *Dudleya blochmaniae* ssp. *blochmaniae*	None/none G2T2/S2.1 List 1B.1	April - June	Open, rocky slopes, often serpentine or clay soils; <450 m. s CCo, SCo	Yes. Moderately appropriate rocky outcrops are present at the Site.	No	Not Significant
28.	**Blochman's Leafy Daisy** *Erigeron blochmaniae*	None/none G2/S2.2 List 1B.2	July - August	Sand dunes and hills; <30 m. s CCo	No. Appropriate habitat is not present at the Site.	No	Not Significant

	Common and Scientific Names	Fed/State Status Global/State Rank CNPS List	Blooming Period	Habitat Preference	Potential Habitat?	Observed on Site?	Effect of Proposed Activity
29.	**Indian Knob Mountain Balm** *Eriodictyon altissimum*	Endangered/ Endangered G2Q/S2.2 List 1B.1	March - June	Sandstone ridges, chaparral; 250± m. Endemic to SLO County	No. Appropriate habitat is not present at the Site.	No	Not Significant
30.	**Hoover's Button-celery** *Eryngium aristulatum* var. *hooveri*	None/none G5T2/S2.1 List 1B.1	July	Vernal pools, lagunas; 0-1000 m. s SnFrB, SCoR	No. Appropriate habitat is not present at the Site.	No	Not Significant
31.	**San Benito Fritillary** *Fritillaria viridea*	None/none G3/S3.2 List 1B.2	March - May	Serpentine slopes; 200-1500 m. SCoR (San Benito, SLO Counties)	No. Appropriate serpentine soils are not present at the Site.	No	Not Significant
32.	**Mesa Horkelia** *Horkelia cuneata* ssp. *puberula*	None/none G4T2/S2.1 List 1B.1	February - September	Dry, sandy coastal chaparral; gen 70-700 m. SCoRO, SCo.	No. Appropriate habitat is not present at the Site.	No	Not Significant
33.	**Jones's Layia** *Layia jonesii*	None/none G1/S1.1 List 1B.2	March - May	Open serpentine or clay slopes; <400 m. Endemic to SLO County	No. Appropriate soil and habitat types are not present at the Site.	No	Not Significant
34.	**San Luis Obispo County Lupine** *Lupinus ludovicianus*	None/none G2/S2.2 List 1B.2	April - July	Open, grassy limestone in oak woodland; 50-500 m. Endemic to SLO County	No. Appropriate limestone soils are not present at the Site.	No	Not Significant
35.	**Palmer's Monardella** *Monardella palmeri*	None/none G2/S2.2 List 1B.2	June - August	Serpentine soils in chaparral, forest; 200-800 m. SCoRO	No. Appropriate soil and habitat types are not present at the Site.	No	Not Significant
36.	**Adobe Sanicle** *Sanicula maritima*	None/Rare G2/S2.2 List 1B.1	February - May	Coastal, grassy, open wet meadows, ravines; ±150 m. CCo (SLO County)	Yes. Appropriate habitat is present at the Site.	No	Not Significant
37.	**Black-flowered Figwort** *Scrophularia atrata*	None/none G2/S2.2 List 1B.2	March - July	Closed-cone coniferous forest, riparian scrub, dune habitats; in sand, diatomaceous shales, calcareous and other soil types. 10-250 m. s SCoRO	No. Appropriate habitat is present at the Site.	No	Not Significant
38.	**Rayless Ragwort** *Senecio aphanactis*	None/none G3?/S1.2 List 2.2	January - April	Drying alkaline flats, chaparral, cismontane woodland, coastal scrub; <400 m. CW, SCo, Chi	No. Appropriate soil and habitat types are not present at the Site.	No	Not Significant

	Common and Scientific Names	Fed/State Status Global/State Rank CNPS List	Blooming Period	Habitat Preference	Potential Habitat?	Observed on Site?	Effect of Proposed Activity
39.	**Cuesta Pass Checkerbloom** *Sidalcea hickmanii* ssp. *anomala*	None/Rare G3T1/S1.2 List 1B.2	May - June	Closed-cone-conifer forest, gen serpentine; 600-800 m. Endemic to SLO County	No. Appropriate soil and habitat types are not present at the Site.	No	Not Significant
40.	**Most-beautiful Jewel-flower** *Streptanthus albidus* ssp. *peramoenus*	None/none G2T2/S2.2 List 1B.2	April - June	Open, grassy or ±barren slopes, often serpentine; ±150-800 m. c SCoRO	No. Appropriate soil type is not present at the Site.	No	Not Significant
41.	**Saline Clover** *Trifolium depauperatum* var. *hydrophilum*	None/none G5T2?/S2.2? List 1B.2	April - June	Salt Marshes, open areas in alkaline soils; <300 m. ScV, CW.	No. Appropriate habitat is not present at the Site.	No	Not Significant
42.	**Caper-fruited Tropidocarpum** *Tropidocarpum capparideum*	None/none G1/S1.1 List 1B.1	March - April	Alkaline clay soil in valley and foothill grassland; 1-455 m.	No. Appropriate habitat is not present at the Site.	No	Not Significant

Abbreviations:

CCo: Central Coast
SCo: South Coast
SCoR: South Coast Ranges
SCoRO: Outer South Coast Ranges
SCoRI: Inner South Coast Ranges
SnFrB: San Francisco Bay

TR: Transverse Ranges
WTR: Western Transverse Ranges
SnJV: San Joaquin Valley
SLO: San Luis Obispo
SN: Sierra Nevada
SNF: Sierra Nevada Foothills

SnJt: San Jacinto Mtns
Teh: Tehachapi Mtn Area
CW: Central West
SW: South West
NC: North Coast
SNH: High Sierra Nevada

GB: Great Basin
DMoj: Mojave Desert
DMtns: Desert Mountains
KR: Klamath Ranges

TABLE 6. SPECIAL STATUS ANIMAL LIST. Thirty-one special status animal species are reported from or could occur in the San Luis Obispo, Lopez Mountain, Pismo Beach, and Arroyo Grande NE quadrangles. Of the 14 species that could potentially occur at the Site, two species were detected. Potential impacts are outlined in section 5.0, and mitigation recommendations are provided in section 6.0.

	Common and Scientific Names	Fed/State Status Global/State Rank DFG Rank	Nesting/ Breeding Period	Habitat Preference	Potential Habitat?	Observed on Site?	Effect of Proposed Activity
	Animals						
43.	**Southwestern Pond Turtle** *Actinemys marmorata pallida*	None/none G3G4T2T3Q/S2 SSC	April - August	Permanent or semi-permanent streams, ponds, lakes.	Yes. Appropriate aquatic habitat is present at the Site.	No	Not Significant With Pre-con Survey & Avoidance
44.	**Tricolored Blackbird** *Agelaius tricolor*	None/none G2G3/S2 SSC (Nesting Colony)	March 15 through August 15	Requires open water, protected nesting substrate, & foraging area with insect prey near nesting colony.	No. Appropriate emergent wetland habitat is not present at the Site.	No	Not Significant
45.	**California Tiger Salamander** *Ambystoma californiense*	Threatened/none G2G3/S2S3 SSC	Rainy season	Needs underground refuges, ground squirrel burrows & vernal pools or other seasonal water for breeding.	No. Appropriate aquatic breeding habitat is not present at the Site.	No	Not Significant
46.	**Grasshopper Sparrow*** *Ammodramus savannarum*	None/none G5/S2 SSC (Nesting)	March 15 through August 15	Nests in grassland habitats on mountain slopes, foothills, and valleys. May nest colonially.	Yes. Appropriate nesting habitat is present at the Site.	No	Not Significant With Pre-con Survey & Avoidance
47.	**Silvery Legless Lizard** *Anniella pulchra pulchra*	None/none G3G4T3T4Q/S3 SSC	May - September	Sandy or loose loamy soils under coastal scrub or oak trees. Soil moisture essential.	No. Appropriate habitat and soil conditions are not present at the Site.	No	Not Significant
48.	**Pallid Bat** *Antrozous pallidus*	None/none G5/S3 SSC	Spring – Summer	Rock crevices, caves, tree hollows, mines, old buildings, and bridges.	Yes. Appropriate roosting habitat is present in riparian trees at the Site.	No	Not Significant With Pre-con Survey & Avoidance

	Common and Scientific Names	Fed/State Status Global/State Rank DFG Rank	Nesting/ Breeding Period	Habitat Preference	Potential Habitat?	Observed on Site?	Effect of Proposed Activity
49.	**Burrowing Owl** *Athene cunicularia*	None/none G4/S2 SSC (Nesting and Wintering)	March 15 through August 15	Burrows in squirrel holes in open habitats with low vegetation.	Yes. Moderately appropriate nesting and wintering habitat is present at the Site.	No	Not Significant With Pre-con Survey & Avoidance
50.	**Vernal Pool Fairy Shrimp** *Branchinecta lynchi*	Threatened/none G3/S2S3 None	Rainy Season	Clear water sandstone depression pools, grassed swale, earth slump, or basalt flow depression pools.	No. Appropriate vernal pool habitat is not present at the Site.	No	Not Significant
51.	**Ferruginous Hawk** *Buteo regalis*	None/none G4/S3S4 Special Animal (Wintering)	October - April (Wintering)	Winters locally in open grassland or savannah habitats. More common in interior SLO County than coast.	Yes. Appropriate habitat is present for migrating and wintering. Does not nest locally.	No	Not Significant
52.	**Western Snowy Plover** *Charadrius alexandrinus nivosus*	Threatened/none G4T3/S2 SSC	March 15 through August 15	Sandy beaches, salt pond levees, & shorelines of large alkali lakes. Needs friable soils for nesting.	No. Appropriate nesting habitat is not present at the Site.	No	Not Significant
53.	**Sandy Beach Tiger Beetle** *Cicindela hirticollis gravida*	None/none G5T4/S1 None	n/a	Adjacent to non-brackish water near the coast from San Francisco to N. Mexico. Clean, dry, light-colored sand in the upper zone.	No. Appropriate habitat is not present at the Site.	No	Not Significant
54.	**Western Yellow-billed Cuckoo** *Coccyzus americanus occidentalis*	Candidate/ Endangered G5T2Q/S1 Special Animal	March 15 through August 15	Nests in riparian jungles of willow, cottonwood, w/ blackberry, nettles, or wild grape understory. Typically found in larger river systems.	No. Appropriate habitat is not present at the Site.	No	Not Significant

	Common and Scientific Names	Fed/State Status Global/State Rank DFG Rank	Nesting/ Breeding Period	Habitat Preference	Potential Habitat?	Observed on Site?	Effect of Proposed Activity
55.	**Townsend's Big-eared Bat** *Corynorhinus townsendii*	None/none G4T3T4/S2S3 SSC	Spring - Summer	Caves, buildings, and mine tunnels. Cave like attics as day roosts. On coast roosts are normally within 100 m. of creeks.	No. Appropriate roosting habitat is not present at the Site.	No	Not Significant
56.	**Monarch Butterfly** *Danaus plexippus*	None/none G5/S3 Special Animal	September - March (aggregations)	Roosts located in wind-protected tree groves with nectar and water nearby.	No. Appropriate wintering aggregation habitat is not present at the Site.	No	Not Significant
57.	**Yellow Warbler*** *Dendroica petechia brewsteri*	None/none G5T3?/S2 SSC (Nesting)	March 15 through August 15	Nests in riparian plant associations, including willows, cottonwoods, etc.	Yes. Appropriate nesting habitat is present in the riparian habitat at the Site.	No	Not Significant With Pre-con Survey & Avoidance
58.	**White-tailed Kite** *Elanus leucurus*	None/none G5/S3 Fully Protected	March 15 through August 15	Nests in dense tree canopy near open foraging areas	No. Appropriate nesting habitat is not present at the Site.	No	Not Significant
59.	**California Horned Lark** *Eremophila alpestris actia*	None/none G5T3/S3 SSC (Nesting)	March 15 through August 15	Nests on the ground in open habitats. More common in the interior.	Yes. Moderately appropriate nesting habitat is present at the Site.	Yes	Not Significant With Pre-con Survey & Avoidance
60.	**Tidewater Goby** *Eucyclogobius newberryi*	Endangered/none G3/S2S3 SSC	n/a	Found in shallow lagoons and lower stream reaches, they need fairly still but not stagnant water and high oxygen levels.	No. Appropriate habitat is not present at the Site.	No	Not Significant
61.	**Western Mastiff Bat** *Eumops perotis californicus*	None/None G5T4/S3? SSC	Sping-Fall	Roosts in crevices in cliff faces, high buildings, trees, and tunnels. Inhabits many open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, grasslands, and chaparral.	Yes. This species could roost in riparian trees at the Site.	No	Not Significant With Pre-con Survey & Avoidance

	Common and Scientific Names	Fed/State Status Global/State Rank DFG Rank	Nesting/ Breeding Period	Habitat Preference	Potential Habitat?	Observed on Site?	Effect of Proposed Activity
62.	**Merlin** *Falco columbarius*	None/none G5/S3 SSC (Wintering)	September - April (Wintering)	Winters on seacoasts, estuaries, woodlands, savannas, grassland edges, deserts.	Yes. Appropriate wintering habitat is present at the Site.	No	Not Significant
63.	**Prairie Falcon** *Falco mexicanus*	None/none G5/S3 Special Animal (Nesting)	March 15 through August 15	Inhabits dry, open terrain. Nests on cliffs near open areas for hunting.	No. Appropriate nesting habitat is not present at the Site.	No	Not Significant
64.	**Loggerhead Shrike*** *Lanius ludovicianus*	None/none G4/S4 SSC (Nesting)	March 15 through August 15	Open areas with appropriate perches, near shrubby vegetation for nesting.	Yes. Appropriate foraging and nesting habitat is present at the Site.	Yes	Not Significant With Pre-con Survey & Avoidance
65.	**California Linderiella** *Linderiella occidentalis*	None/none G2G3/S2S3 Special Animal	Rainy season	Seasonal pools in unplowed grasslands with alluvial soils.	No. Vernal pool habitat is not present at the Site.	No	Not Significant
66.	**Steelhead - South/Central California Coast ESU** *Oncorhynchus mykiss irideus*	Threatened/none G5T2Q/S2 Special Animal	February - April	Fed listing refers to runs in coastal basins from Pajaro River south to, but not including, the Santa Maria River.	No. Appropriate habitat is not present at the Site.	No	Not Significant
67.	**Coast Horned Lizard** *Phrynosoma coronatum (frontale population)*	None/none G4G5/S3S4 SSC	May - September	Frequents a wide variety of habitats, most common in lowlands along sandy washes with scattered low bushes.	No. Appropriate habitat is not present at the Site.	No	Not Significant
68.	**Atascadero June Beetle** *Polyphylla nubila*	None/none G1/S1 Special Animal	n/a	Known only from sand dunes in Atascadero and San Luis Obispo, San Luis Obispo County.	No. Appropriate soil and habitat type not present at the Site.	No	Not Significant
69.	**Purple Martin** *Progne subis*	None/none G5/S3 SSC	March 15 through August 15	Inhabits woodlands, coniferous forests. Nests in woodpecker cavities on dead snags.	Yes. Appropriate nesting habitat is present at the Site.	No	Not Significant

	Common and Scientific Names	Fed/State Status Global/State Rank DFG Rank	Nesting/ Breeding Period	Habitat Preference	Potential Habitat?	Observed on Site?	Effect of Proposed Activity
70.	**San Luis Obispo Pyrg** *Pyrgulopsis taylori*	None/none G1/S1 Special Animal	n/a	Freshwater habitats in San Luis Obispo County.	Yes. Appropriate aquatic habitat is present at the Site.	No	Not Significant
71.	**California Red-legged Frog** *Rana draytonii*	Threatened/none G4T2T3/S2S3 SSC	January - March	Lowlands and foothills in or near sources of deep water with dense, shrubby or emergent riparian vegetation.	Yes. Appropriate habitat is present at the Site.	No	Not Significant With Pre-con Survey & Avoidance
72.	**Coast Range Newt** *Taricha torosa torosa*	None/none G5T4/S4 SSC	December - May	Slow moving streams, ponds, and lakes with surrounding evergreen/oak forests along coast.	No. Aquatic habitat is suitable, but appropriate upland habitat is not present that would allow this species to be occur at the Site.	No	Not Significant
73.	**American Badger** *Taxidea taxus*	None/none G5/S4 SSC	February – May	Needs friable soils in open ground with abundant food source such as California ground squirrels.	Yes. Appropriate habitat is present at the Site	No	Not Significant With Pre-con Survey & Avoidance

Habitat characteristics are from the Jepson Manual and the CDNNB.
*not listed in the CNDDB or CNPS for the search area, but possible for the location.

TABLE 7. SENSITIVE NATURAL COMMUNITIES. Six sensitive natural communities are reported or expected from the search area. Sensitive natural communities do not occur at the Site.

	Common Name	Federal/State Status Global/State Rank	Potential Habitat?	Effect of Proposed Activity
	Sensitive Natural Communities			
1.	**Central Foredunes**	None/none G1/S1.2	No. Dune habitat is not present at the Site.	Not Significant
2.	**Central Maritime Chaparral**	None/none G2/S2.2	No. Maritime chaparral habitat is not present at the Site.	Not Significant
3.	**Coastal and Valley Freshwater Marsh***	None/none G3/S2.1	No. Wetland and riparian habitats are present, but freshwater marsh habitat does not occur at the Site.	Not Significant
4.	**Northern Interior Cypress Forest**	None/none G2/S2.2	No. Cypress trees do not occur at the Site.	Not Significant
5.	**Serpentine Bunchgrass**	None/none G2/S2.2	No. Serpentine rock and or soil does not occur on site.	Not Significant
6.	**Valley Needlegrass Grassland**	None/none G1/S3.1	No. Bunchgrass patches at the Site do not meet size and density requirements to qualify as a sensitive natural community.	Not Significant

3.6.4 Special status plants that could occur at the Site

Appropriate habitat for six special status plants is present at the Site. A seasonally timed floristic survey in the spring of 2005 determined only two special status plants occur at the Site. Obispo Indian paintbrush and Cambria morning glory are both CNPS List 1B.2 species that grow in coastal grasslands in San Luis Obispo County. Both of these species were identified at the Site during surveys in the spring of 2005. Locations of special status plants at the Site are indicated on the Biological Resource Map provided in Section 7.0.

A. **Obispo Indian paintbrush** (*Castilleja densiflora* ssp. *obispoensis*) is a CNPS List 1B.2 subspecies known only from San Luis Obispo County. It is an annual wildflower with a white inflorescence that occurs in coastal grasslands in sandy or clay soils. A small population of Obispo Indian paintbrush consisting of approximately 50 plants was observed in May 2005 at the Site. This population occurs on a grassy hill with rock outcrops west of the main riparian drainage. We mapped the occurrence and estimated the population based on dried stalks still visible among the grazed grasses. One plant was found in bloom and allowed accurate identification of the subspecies (three subspecies of *Castilleja densiflora* occur in the County with overlapping ranges). We mapped Obispo Indian paintbrush where found, however because this is an annual species, its distribution and abundance at the Site is expected to vary from year to year.

B. **Cambria morning glory** (*Calystegia subacaulis* ssp. *episcopalis*) is a CNPS List 1B.2 subspecies endemic to San Luis Obispo County. It occurs in coastal grassland and open scrub and woodland habitats. Its rarity status is due to the limited distribution of this subspecies, although it may be found commonly within its range and habitat type. The plant forms a small short-lived perennial rosette with a conspicuous cream colored flower. Cambria morning-glory occurs at the Site in the grassland habitat, often (but not always) near rock outcrops. We mapped locations of the patches in June 2005. One patch of Cambria morning glory at the Site has been extirpated since 2005 due to vineyard plantings.

3.6.5 Special status animals that could occur at the Site

Appropriate habitat for 14 special status animals is present at the Site. Southwestern pond turtle, California red-legged frog and Coast Range newt potentially could occur in the perennial drainage. Eight special status bird species could be found at the Site seasonally, either wintering or nesting. Two special status bat species could roost in large riparian trees on Site. American badgers are known to be present in grassland habitats in the general vicinity of the Site. The San Luis Obispo pyrg is an uncommon aquatic snail endemic to the area that could occur in the perennial drainage at the Site.

A. **Southwestern pond turtle** (*Actinemys marmorata pallida*) is a Species of Special Concern that inhabits ponds and slow moving streams with adequate pools. Pond turtles will move up seasonal streams during the winter months, and can over-summer in underground burrows during dry years and summer months when ponds are empty. Appropriate aquatic habitat is present in the main riparian

drainage at the Site. Upland habitat is poor due to lack of vegetated areas. Southwestern pond turtles were not found on site during any of our field surveys, but could occur.

B. Grasshopper sparrow (*Ammodramus savannarum*) is a Species of Special Concern that nests on the ground in grassland habitats in San Luis Obispo County and elsewhere in California, wintering south to Central America. It has been extirpated from much of its former range in Southern California but continues to breed locally in grasslands throughout San Luis Obispo County. Grasshopper sparrows were not observed at the Site, but are known to occur in the vicinity. Althouse and Meade, Inc. reported singing male grasshopper sparrows 2.4 miles south of the Site in April and May 2005. Pre-construction surveys should be conducted if project activities affect grassland habitat during the nesting season.

C. Pallid bat (*Antrozous pallidus*) is a Species of Special Concern. This is a large, long-eared bat occurring throughout the state of California from deserts to moist forests. *Antrozous pallidus* is primarily a crevice roosting species and selects roosts where they can retreat from view. The pallid bat prefers rocky outcroppings, but may be found regularly in oak and pine woodlands where they roost in caves, mines, rock crevices, hollow trees, and buildings (Nowak 1994). Bridges are also commonly used, often as night roosts between foraging periods. Maternity colonies form starting in April, averaging 12 to 100 bats, and disband in late August. Young are born in May and June. Communal wintering or maternity colonies are more common in rock crevices and caves. Pallid bats are known to roost in the City of San Luis Obispo (CNDDB #77), and are expected to be present elsewhere in the area. Pre-construction surveys should be conducted if project activities affect large trees at the Site.

D. Burrowing owl (*Athene cunicularia*) is a small, rare owl that nests in abandoned animal burrows, most notably those of the California ground squirrel. It is listed as a Species of Special Concern. Burrowing owls are resident in local areas of the interior, from the Bitterwater Valley to the Carrizo Plains and elsewhere. Less frequent reports are from coastal grasslands in San Luis Obispo County (CNDDB #573). There are no reports in the CNDDB for burrowing owls in the Edna Valley area, however appropriate habitat is present, and transient owls could use the Site. Nesting would be unlikely at the Site, but wintering or migrating burrowing owls could be present seasonally. No signs of burrowing owls were found at the Site during our survey in 2005 and 2008. Pre-construction surveys should be conducted if project activities affect grassland habitat during the nesting season.

E. Ferruginous hawk (*Buteo regalis*) is a Species of Special Concern that winters in grassland habitats in San Luis Obispo County, and elsewhere in California. It does not breed in San Luis Obispo County, but is protected by CDFG on its wintering grounds. Ferruginous hawks prefer short-grass habitats such as grasslands and fallow farm fields where they often perch on the ground and hunt by coursing low over the fields. Ferruginous hawks are uncommon in the vicinity of the City of San Luis Obispo, but have been reported (CNDDB #25).

Ferruginous hawks were not observed during our wildlife surveys in 2005 and 2008, but could occur.

F. **Yellow warbler** (*Dendroica petechia brewsteri*) is a Species of Special Concern with a restricted breeding range in Central and Southern California. They frequent riparian habitats, nesting in sycamores, cottonwoods, willows, and other riparian trees. There are no breeding records in the CNDDB for yellow warbler near the City of San Luis Obispo; however yellow warbler is a regular spring and fall migrant that will breed in the County. The riparian habitat in at the Site is suitable for nesting yellow warblers. This species was not observed on or near the Site during our surveys in 2005 and 2008. Pre-construction surveys should be conducted if project activities affect riparian habitat during the nesting season.

G. **California horned lark** (*Eremophila alpestris actia*) is a Species of Special Concern known from Sonoma County south to San Diego County, and east to the foothills of the Sierra Nevada Mountains. It breeds in open, mostly flat habitats with short vegetation, including grasslands, alkali flats, fallow grain fields, and meadows. Horned larks are common in the interior areas of San Luis Obispo County. They are known to make local movements through the seasons, and may not breed in all areas they are observed. A single adult male horned lark was observed at the Site in May 2005, and a small flock was observed in June 2005. No evidence of nesting was found. Pre-construction surveys should be conducted if project activities affect grassland habitat during the nesting season.

H. **Western mastiff bat** (*Eumops perotis californicus*) is a Species of Special Concern that roosts in crevices in a variety of materials, including buildings, tunnels, boulders, and trees. Western mastiff bats could roost in large sycamore or oak trees with loose bark at the Site. Pre-construction surveys should be conducted if project activities affect large trees at the Site.

I. **Merlin** (*Falco columbarius*) is a Species of Special Concern that winters in various habitats in San Luis Obispo County. Merlins do not breed locally. Habitats at the Site are appropriate for wintering activities and as temporary foraging areas during migration. Merlins were not observed at the Site during our surveys in 2005 and 2008, but could occur.

J. **Loggerhead shrike** (*Lanius ludovicianus*) is a Species of Special Concern that requires open areas with appropriate perches for hunting, and shrubby trees or bushes for nesting. One shrike was observed at the Site in June 2005. Shrubby willows in ephemeral drainages are suitable as nesting habitat for loggerhead shrikes. Pre-construction surveys should be conducted if project activities affect trees or shrubs during the nesting season.

K. **Purple martin** (*Progne subis*) is a Species of Special Concern with a limited range and low abundance in California. Purple martins nest colonially in abandoned woodpecker and natural cavities in trees, especially Western sycamores. Purple martins are migratory, typically returning to the same nesting

sites year after year. There are no reported nesting localities in the Edna Valley. Appropriate nesting habitat is present in sycamore trees in the main riparian drainage at the Site. Purple martins were not observed during our site surveys in 2005 and 2008. Pre-construction surveys should be conducted if project activities affect sycamore trees during the nesting season.

L. **San Luis Obispo pyrg** (*Pyrgulopsis taylori*) is an uncommon species of freshwater snail known from streams near the City of San Luis Obispo. It is reported from small streams and springs, including Brizzolari Creek, the headwaters of San Luis Obispo Creek, and unnamed springs north of San Luis Obispo. San Luis Obispo pyrg could occur in the perennial drainage at the Site.

M. **California red-legged frog** (*Rana draytonii*) is a federally listed threatened species with sporadic occurrences documented throughout San Luis Obispo County. It generally requires seasonal pools or streams that hold water until late summer for successful breeding. Bullfrogs and introduced fish can detrimental to its breeding success, and have severely reduced many populations in larger watercourses and perennial ponds. There are no reports of red-legged frogs in the vicinity of the Site, although suitable habitat is present in the main riparian drainage. California red-legged frogs were not observed on Site in 2005 or 2008. Protocol level surveys were not conducted.

N. **American badger** (*Taxidea taxus*) is a Species of Special Concern known from open grassland habitats throughout San Luis Obispo County, including Edna Valley, and elsewhere in California. Appropriate habitat for badgers is present at the Site. No signs of American badger were observed during our site surveys in 2005 and 2008.

3.6.6 Special status species not expected to occur at the Site

The remaining 57 special status species known to occur in the San Luis Obispo, Lopez Mountain, Pismo Beach, and Arroyo Grande NE quadrangles are not expected to occur at the Site due to the absence of required soil type, lack of appropriate habitat, or because the project site is substantially outside the known range of the species.

3.6.7 Sensitive natural communities and special aquatic sites

No habitats listed by the California Department of Fish and Game as sensitive natural communities occur at the Site. Development of the proposed project would not impact sensitive natural communities.

Riparian habitats and wetlands occur at the Site. Wetlands are considered "special aquatic sites" under the United States Army Corps of Engineers definition. Special aquatic sites are afforded protection under the Clean Water Act (§401 and §404) and by the California Department of Fish and Game Code (§1600-1616). Riparian habitats are known to harbor threatened and endangered species in San Luis Obispo County. Set-backs from the edge of riparian habitat are typically provided for by CDFG and County regulations.

4.0 Discussion

4.1 General Discussion of Site Conditions

The grasslands at the project site have a long history of intensive grazing. Invasive non-native grass species are present. The flora is typical of heavily grazed annual grasslands, consisting of naturalized Mediterranean grasses and weedy forbs, with scattered patches of bunchgrasses. The rangeland quality is being degraded by medusahead, an invasive grass, infestations of which lower the carrying capacity of the rangeland. In 2008 the grassland habitat was un-grazed, and supported more native forbs and bunchgrasses than were found while grazed in 2005. Two special status plants persist in patches within the grassland habitat at the Site (refer to map in Section 7.0).

The riparian and wetland habitats are valuable biological resources that are under the jurisdiction of local, state, and federal agencies. Development activities that affect these habitats would require agency review and permits. No special status species were documented in these habitats, although numerous species could potentially occur.

4.2 Regulatory Framework

The California Environmental Quality Act (CEQA) requires the lead agency (in this case, the County of San Luis Obispo) to determine potential environmental effects of the project. The lead agency must also identify other involved agencies that become responsible or trustee agencies.

All of the plants constituting CNPS List 1B meet the definitions of Sec. 1901, Chapter 10 of the California Native Plant Protection Act (CNPPA) or Secs. 2062 and 2067 (California Endangered Species Act) of the California Department of Fish and Game Code, and are eligible for state listing. It is mandatory that they be fully considered during preparation of environmental documents relating to CEQA (CEQA section 15065).

Rare plants protected under the CNPPA must be fully considered under CEQA (CEQA sections 15380, 15386). Proposed impacts that affect more than 10 percent of a local breeding population generally require mitigation at a minimum 2:1 ratio.

The CDFG recognizes that Lists 1A, 1B, and 2 of the CNPS Inventory consist of plants that may qualify for listing, and recommends they be addressed in CEQA projects.

Rare plants and animals protected under the Federal Endangered Species Act (FESA) are protected. The United States Fish and Wildlife Service is the agency that regulates activities affecting federally listed species.

Nesting birds are protected from disturbance by The Migratory Bird Treaty Act of 1918, (as regulated by the United States Fish and Wildlife Service) and by sections 3503, 3503.5, and 3800 of the California Department of Fish and Game code.

Drainages on the site may be under the permitting jurisdiction of the U.S. Army Corps of Engineers (§404), the California Department of Fish and Game (§1603), and the Regional Water Quality Control Board (§401). The applicant should demonstrate to the lead agency that all applicable permits have been obtained for work affecting drainages and

wetlands. All work that affects the bed or banks of the drainages, including culverts and bridges, is likely to require USACE, RWQCB, and CDFG authorizations.

5.0 Potential Impacts

Development on the Site could affect special status plants and animals, grassland, riparian, and wetland habitats, native trees, and common wildlife species. The proposed project is a residential cluster consisting of eight lots. The primary road access would be from Orcutt Road at the west end of the Site via an existing road that is paved through an easement on the adjacent parcel. An emergency access road is proposed through the east end of the Site to Avocado Lane. A development plan prepared by Wallace Group (December 3, 2008) was used as the basis of our impact analysis (Section 7.0). Grading plans were not yet available.

Sections 5.1 through 5.4 address potential impacts to biological resources from development of the proposed project. We include in our analysis impacts to both common and special status species, as well as to habitats that are not sensitive. This consideration contributes to understanding cumulative impacts to the environment that may result from the loss of common species and habitat.

5.1 Habitat Impacts

5.1.1 California annual grassland

Development of the proposed project would result in the permanent loss of an estimated 12 to 15 acres of annual grassland habitat. Grasslands would be impacted by construction of eight homes and appurtenant structures, and construction of roads. The loss of annual grassland habitat in San Luis Obispo County is considered a less than significant impact, unless special status species are affected. Potential impacts to special status species are addressed in Sections 5.3 and 5.4.

5.1.2 Riparian

Development of the eight residential lots would not impact riparian habitat. Roads accessing the lots would be constructed on existing agricultural roads. No new culverts would be required. Road widening requirements could potentially include culvert extensions that would affect small areas of riparian habitat. Small impacts to riparian habitat can be mitigated to a less than significant level (refer to Section 6.1.2).

The proposed project does not provide a riparian set-back along the emergency access road, which could cause adverse impacts to wildlife movement (addressed in Section 5.2.2), and could result in increased inputs of deleterious materials from road use. One or more native Western sycamore trees could be impacted or removed.

5.1.3 Wetland

Wetlands were identified at the Site (Althouse and Meade, Inc. August 2005). Roads accessing the lots would be constructed on existing agricultural roads. No new culverts are anticipated. Road widening requirements could potentially include culvert extensions

that would affect small areas of Federal and/or State wetlands. Small impacts to wetland habitat can be mitigated to a less than significant level (refer to Section 6.1.3).

Proposed Lot 5 contains a State wetland of approximately 1,385 square feet. The development plan indicates this wetland would be avoided.

5.2 Common Wildlife Impacts

5.2.1 Nesting habitat

Numerous common bird species are expected to breed in grassland and riparian habitats at the Site, including raptors. One raptor nest was located in a sycamore tree in the fall of 2008. Impacts to or take of nesting birds could occur if grading or tree removal/trimming is conducted during nesting season (March 15 through August 15). Take of common nesting birds is prohibited by federal and state code. Impacts to or take of common nesting birds can be avoided (refer to Section 6.2.1).

5.2.2 Reduction of wildlife movement corridors

The Site is unlikely to be part of a significant wildlife movement corridor linking two important seasonal habitats, however we expect a variety of mammals to move through the Site on occasion. Larger mammals such as coyote, fox, and deer often follow riparian corridors, utilizing adjacent habitats as foraging areas. Smaller mammals such as raccoon and opossum are likely to move through the Site within the riparian habitat. Turtles, frogs, and other small organisms likely move along the stream course to access seasonal habitat areas.

Development of the residential lots is unlikely to significantly affect wildlife movement through the Site. The lack of a riparian set-back for approximately 1,200 linear feet of the emergency access road would reduce the quality of the riparian habitat in that area for wildlife movement. Traffic on the road is, however, expected to be light since it is an emergency access. Impacts to riparian wildlife movement corridors can be reduced to a less than significant level (refer to Section 6.2.2).

5.2.3 Displacement and/or take

Common wildlife species currently living at the Site or using the Site as transients would be displaced by development. Take of common species may occur during construction activities. Displacement and/or take of common wildlife species is not a significant impact.

5.3 Special Status Plant Impacts

Two special status plant species were identified at the Site during our botanical surveys in 2005. The locations of special status plant occurrences indicated on the Biological Resource Map in Section 7.0 are from the spring of 2005. The proposed project could result in impacts to both species through loss of habitat and/or removal of plants. Potential impacts to special status plants at the Site can be reduced to a less than significant level (refer to Section 6.3).

Impacts could occur to both of the rare plant populations on site. Two sensitive bird species, loggerhead shrike and horned lark, were identified on the project site. Nesting was not confirmed for either species, however appropriate habitat is present and nesting could occur in subsequent years.

5.4 Special Status Animal Impacts

Fourteen special status animals could potentially occur at the Site, including eight birds, two bats, the California red-legged frog, Southwestern pond turtle, American badger, and San Luis Obispo pyrg.

5.4.1 Special status birds

Eight special status birds could potentially be present at the Site. Two species, merlin and ferruginous hawk, would be present only in the winter and displacement would not be a significant adverse affect. The remaining six species could potentially nest at the Site, and construction activities conducted during the nesting season. The potential for take of nesting special status birds can be reduced to a less than significant level (refer to Section 6.4.1).

5.4.2 Special status bats

Two special status bat species could potentially roost in large riparian trees at the Site. Construction activities that affect riparian trees could result in adverse affects to bat roosts. The potential for take of roosting bats can be reduced to a less than significant level (refer to Section 6.4.2).

5.4.3 California red-legged frog

The perennial drainage at the east end of the Site is suitable for use by the California red-legged frog. Downstream (south) of the confluence of the main two forks the stream is perennial, and contains pool habitat and cover preferred by red-legged frogs. Construction activities that affect the drainage or adjacent vegetation could potentially result in take of the California red-legged frog. The potential for take of the California red-legged frog can be reduced to a less than significant level (refer to Section 6.4.3).

5.4.4 Southwestern pond turtle

Suitable aquatic habitat is present in the perennial drainage at the east end of the Site, however there is no suitable upland habitat adjacent to the stream within the boundaries of the Site. It is possible that pond turtles could move through the Site within the stream on occasion. Construction activities that affect the drainage or adjacent vegetation could potentially result in take of the Southwestern pond turtle. The potential for take of the Southwestern pond turtle can be reduced to a less than significant level (refer to Section 6.4.4).

5.4.5 American badger

Badgers were not present on the Site during our surveys in 2005 and 2008, but they are known from the Edna Valley and could potentially be present in the future. Loss of suitable grassland habitat for badgers is a less than significant impact. If badger dens

were present in the project areas, construction grading could result in take. The potential for take of the American badger can be reduced to a less than significant level (refer to Section 6.4.5).

5.4.6 San Luis Obispo pyrg

The San Luis Obispo pyrg is an uncommon aquatic snail that could potentially be present in the perennial stream at the east end of the Site. The project is not expected to adversely affect this species.

6.0 Mitigation Recommendations

We recommend the following biological resource (BR) mitigation measures to reduce project impacts to a less than significant level.

6.1 Habitat Mitigations

6.1.1 California annual grassland

The loss of an estimated 12 to 15 acres of annual grassland habitat is not a significant impact; therefore no mitigation is recommended.

6.1.2 Riparian

The proposed project could result in direct impacts to riparian habitat (permanent loss of habitat due to culvert extensions, if required). The loss of small areas of riparian habitat can be mitigated to a less than significant level (refer to BR-4).

The California Department of Fish and Game typically requires development set-backs of 50 feet from the outer edge of riparian canopy for streams in San Luis Obispo County similar to the perennial drainage on the Site. Because the proposed emergency access road along the edge of the stream would be an all-weather road (gravel base) constructed on an existing agricultural road that would receive only occasional vehicle traffic, and because the adjacent upland habitat is a vineyard, a 25 foot set-back may be suitable for this project.

The following list of riparian habitat mitigations should be implemented, as appropriate.

BR-1. To minimize impacts to the riparian habitat, the applicant agrees to the following during construction of the project:

a) All riparian vegetation removal shall be shown on all applicable grading/ construction or improvement plans, and reviewed/ approved by the County Planning and Building Department before any work begins.

b) Vegetation removal of riparian habitat shall be limited to what is shown on the county-approved grading/ construction /improvement plans.

c) Vegetation clearance for fire safety purposes shall be limited to the minimum setbacks required by CAL FIRE. Where feasible, all efforts will be made to retain as much of this vegetation within the setback as possible

(e.g. remove/trim only enough vegetation to create non-contiguous islands of native vegetation).

d) No livestock shall be allowed within the native riparian habitat area.

e) All allowed uses within the native habitat area shall be "passive", where the use will have either no or minimal impact on the habitat.

f) Any CC&R's created shall include the above provisions to minimize impacts to the native habitat

BR-2. Upon completion of a grading plan, a riparian habitat impact analysis shall be completed by a qualified biologist. The impact analysis shall determine if a Streambed Alteration Agreement from the CDFG would be required for proposed work, and will determine mitigation requirements.

BR-3. If construction of the proposed project, including roads, requires work within the riparian habitat (defined as the area of stream habitat existing between the outer edge of riparian vegetation, or between the tops of each bank if no vegetation present), the applicant shall obtain a Streambed Alteration Agreement permit from the California Department of Fish and Game. Additional permits may be required by the United States Army Corps of Engineers and the Regional Water Quality Control Board.

BR-4. A mitigation, monitoring, and reporting plan shall be prepared and approved by the County and other jurisdictional agencies, as appropriate (i.e., California Department of Fish and Game, U.S. Army Corps of Engineers, and the Regional Water Quality Control Board). Riparian mitigation will increase the aerial extent of riparian habitat on site at a two-to-one ratio (created riparian area to impacted riparian area). Functions and values of the created riparian zone must be comparable to the existing habitat. Mitigation implementation and success will be monitored for a minimum of three years.

BR-5. If construction activities are proposed within 50 feet of the riparian habitat, an environmental monitor shall be present to ensure adequate riparian habitat protections are in place and that no sensitive wildlife is in the work area.

BR-6. Prior to issuance of grading permits, the "Project Limits" shall be clearly indicated on all plan sets. Prior to any construction work beginning, including any vegetation clearing, where sensitive habitat has been identified by the project biologist, sturdy high-visibility fencing shall be installed to protect the habitat. Fencing shall be placed as far away as possible and no closer than 25 feet from the edge of existing riparian vegetation (or creek bank if no riparian vegetation exists). Fencing may be placed closer than 25 feet if it is determined by the project biologist that no adverse impacts to the habitat would result. No construction work (including storage of materials) shall occur outside of the "Project Limits". Any required fencing shall remain in place during the entire construction period and checked and repaired as needed by the environmental monitor.

6.1.3 Wetland

The proposed project could result in permanent impacts to Federal and State wetlands. The lead agency shall determine if impacts to State wetlands require mitigation. Impacts to Federal wetlands do require mitigation. We recommend avoidance of Federal and State wetlands at the Site. If avoidance is not possible, the following mitigation recommendations are provided:

BR-7. **A wetland impact analysis shall be completed for the project.** Wetland map layers from the 2005 Althouse and Meade, Inc. wetland delineation shall be overlaid on engineering drawings and the area of impact calculated.

BR-8. **A mitigation, monitoring, and reporting plan (MMRP)** shall be prepared and approved by the County and other jurisdictional agencies, as appropriate (i.e., California Department of Fish and Game, U.S. Army Corps of Engineers, and the Regional Water Quality Control Board). The MMRP shall be written to the standards of the County of San Luis Obispo. Wetland mitigation shall increase the aerial extent of wetland habitat on site at a two-to-one ratio (created wetland area to impacted wetland area), or enhance existing low quality wetland habitat at a ratio of three-to-one. Mitigation implementation and success shall be monitored for a minimum of three years, depending on the jurisdictional agencies' requirements.

BR-9. **A 25-foot development setback shall be implemented around the perimeter of Federal jurisdictional wetlands and water of the United States, except where road crossings are approved and permitted.** The setback shall be shown on all engineering drawings and plan sets.

BR-10. **Prior to any work being conducted within 50 feet of jurisdictional wetlands or waters of the United States, appropriate barrier fencing shall be installed to protect wetlands and waters from incidental construction impacts.** For approved impacts, fencing shall be moved to the outer limits of proposed grading in a manner that protects all jurisdictional areas not approved for impacts. Fencing shall be maintained throughout the life of the construction project.

BR-11. **Disturbed areas within 50-feet of wetland habitat shall be restored immediately.** Restoration shall be designed to provide immediate and long-term erosion control, and enhancement of habitat quality. Wetland restoration plans shall be approved by the project biologist and/or the County.

BR-12. **Vegetation clearance within wetland habitat and the 50-foot setback for fire safety purposes shall be limited to the minimum extent required by CAL FIRE.** Where feasible, all efforts will be made to retain as much of this vegetation within the setback as possible.

BR-13. **An on-site monitor shall be required during construction activities that affect jurisdictional wetlands and waters of the United States.**

6.2 Common wildlife mitigations

6.2.1 Nesting habitat

Migratory non-game native bird species are protected by international treaty under the Federal Migratory Bird Treaty Act (MBTA) of 1918 (50 C.F.R. Section 10.13). Sections 3503, 3503.5 and 3513 of the California Fish and Game Code prohibit take of all birds and their active nests including raptors and other migratory non-game birds (as listed under the Federal MBTA).

BR-14. Within one week of ground disturbance or tree removal/trimming activities, if work occurs between March 15 and August 15, nesting bird surveys shall be conducted. To avoid impacts to nesting birds, grading and construction activities that affect trees and grasslands shall not be conducted during the breeding season from March 15 to August 15. If construction activities must be conducted during this period, nesting bird surveys shall take place within one week of habitat disturbance. If surveys do not locate nesting birds, construction activities may be conducted. If nesting birds are located, no construction activities shall occur within 100 feet of nests until chicks are fledged. Construction activities shall observe a 300-foot buffer for active raptor nests. A 500-foot buffer shall be observed from occupied nests of all special status species (refer to BR-24 and BR-25). No work may be conducted within the nest buffer until the project biologist verifies that chicks have fledged and are no longer dependent upon the nest site. A survey report shall be submitted to the lead agency immediately upon completion of the survey. The report shall detail appropriate fencing or flagging of the buffer zone and make recommendations on additional monitoring requirements. The biologist shall have the authority to reduce or increase the recommended buffer depending upon site conditions.

6.2.2 Reduction of wildlife movement corridors

Impacts to the riparian zone shall be minimized to protect local wildlife movement corridors. Open space fences shall not include game wire, no-climb wire, or impenetrable fencing, or shall have animal passages at 150 foot intervals. Exterior lights shall be shielded to direct lighting to the ground.

BR-15. Open space fencing shall not include game wire, no-climb wire, or impenetrable fencing, or shall have animal passages at 150 foot intervals.

BR-16. Exterior lighting along the emergency access road shall be shielded to direct light to the ground, away from the riparian habitat.

BR-17. A minimum 25 foot set-back shall be maintained from the riparian habitat, except where road crossings are approved. Vegetation planted within the set-back shall be native species typical of the area.

6.2.3 Displacement and/or take

Wildlife expected to occur on the Property includes common species such as gray fox, mule deer, coyote, bobcat, striped skunk, gopher snake, fence lizard, various birds, and several species of rodents. Mitigations for impacts to common wildlife species are usually not required.

6.3 Mitigations for Special Status Plants

The following mitigation recommendations should be implemented to reduce potential impacts to special status plants to a less than significant level:

BR-18. Mapped locations of special status plant species shall be included on all project plan sets. Althouse and Meade, Inc. will provide the applicant with CAD layers for special status species occurrence at the Site.

BR-19. Prior to grubbing, grading, or any other site disturbance related to the project, a pre-construction survey shall be conducted by a qualified botanist to determine the current extent of special status plants in the project areas. The survey shall cover all project areas, including roads. A report shall be submitted to the lead agency prior to issuance of grading permits. The report shall provide an impact analysis, and shall determine what mitigations are applicable (refer to BR-19 and BR-20).

BR-20. Where feasible, grading shall be conducted from May 31st through February 1st to avoid the blooming period for Cambria morning glory and Obispo Indian paintbrush. This would allow plants to mature and produce seed before soil disturbance occurs.

BR-21. Protective fencing shall be placed around all special status plant occurrences within 50 feet of project areas to protect against incidental impacts. Fencing shall consist of four foot orange construction fencing with T-posts placed every six to eight feet. Fencing shall remain in place throughout the construction phase.

BR-22. If the project would result in the loss of ten percent or more of the population of any one special status plant species at the Site, a mitigation plan shall be prepared to offset the impact at a one to one ratio. The impact shall be calculated, and mitigation accounted for, in terms of square feet of occurrence. Plant density within the mitigation site shall be comparable to the impacted site. The mitigation site shall be monitored and maintained for a minimum of three years.

BR-23. If the project would result in the loss of less than ten percent of the population of any one special status plant species at the Site, the project botanist shall collect seeds of the plants to be impacted and broadcast them in suitable areas of the project the following season. This mitigation does not require a monitoring component.

6.4 Mitigations for Special Status Animals

6.4.1 Special status birds

If work is conducted on the Site from March 15 through August 15 pre-construction surveys for nesting birds are required (refer to BR-14). If occupied nests of special status birds are present (refer to Section 5.4.1 for list), the following additional mitigation recommendations shall be implemented:

BR-24. All occupied nests shall be mapped using GPS or survey equipment. The mapped locations shall be placed on a copy of the grading plans with a 500-foot buffer indicated. Work shall not be allowed within the 500 foot buffer while the nest is in use. The buffer zone shall be delineated on the ground with orange construction fencing where it overlaps work areas.

BR-25. Occupied nests of special status bird species that are within 500 feet of project work areas shall be monitored bi-monthly through the nesting season to document nest success and check for project compliance with buffer zones. Once nests are deemed inactive and/or chicks have fledged and are no longer dependant on the nest, work can commence.

6.4.2 Special status bats

Bats and bat roosts are regulated by the California Department of Fish and Game. Large roosting colonies found during the months of April to August are likely maternity colonies. Maternity colonies of any bat species may not be disturbed during this period when young are being raised. The following mitigation recommendation would adequately address the potential for impacts to roosting bats:

BR-26. If the project requires the removal of any large trees on Site, a qualified biologist shall survey the tree for roosting bat colonies. If a bat colony is present, passive exclusion measures may be installed outside the breeding season (April through October) with approval from CDFG. November is the best time of the year to exclude bats from a roost because it is after the breeding season and before winter hibernation (not all species hibernate).

BR-27. If bats are excluded from a roost on Site, alternate bat roosting habitat shall be provided.

6.4.3 California red-legged frog

The California red-legged frog is a federally listed threatened species. It has not been detected on Site, but suitable habitat is present. The following mitigation recommendation is provided to ensure the project does not adversely affect red-legged frogs:

BR-28. Immediately prior to any work beginning, surveys for California red-legged frogs shall be conducted by a qualified biologist. If red-legged frogs are found on Site, barrier fencing shall be installed between the work area and their habitat. This fencing shall be keyed into the ground and maintained throughout

the construction period. As needed or applicable, this fencing shall be coordinated with other sedimentation and erosion control fencing. In addition, a biological monitor, experienced with red-legged frogs, shall be retained to survey each morning before work begins within the "Project Limits" for red-legged frogs. In the event any are found, they will be allowed to move through the project site on their own before work may resume.

6.4.4 Southwestern pond turtle

Pond turtles were not detected on streams at the Site, but could occur. The following mitigation recommendation is provided to ensure the project does not adversely affect pond turtles:

BR-29. Immediately prior to any work beginning within 25 feet of a perennial stream, a pre-construction survey shall be conducted by a qualified biologist. Pond turtles found within the project areas shall be moved to an appropriate location on the property, to be determined by the project biologist. If pond turtles are present near project areas, an environmental monitor shall be present during work and daily pre-construction surveys shall be conducted.

6.4.5 American badger

Potentially suitable habitat is present at the Site for the American badger. The following mitigation measure would reduce the potential for take of the American bager:

BR-30. A pre-construction survey shall be conducted within thirty days of beginning work on the Site to identify if badgers are present. The results of the survey shall be sent to the project manager and the County of San Luis Obispo

If the pre-construction survey finds potential badger dens, they shall be inspected to determine whether they are occupied. The survey shall cover the entire property, and shall examine both old and new dens. If potential badger dens are too long to completely inspect from the entrance, a fiber optic scope shall be used to examine the den to the end. Inactive dens may be excavated by hand with a shovel to prevent re-use of dens during construction. If badgers are found in dens on the property between February and July, nursing young may be present. To avoid disturbance and the possibility of direct take of adults and nursing young, and to prevent badgers from becoming trapped in burrows during construction activity, no grading shall occur within 100 feet of active badger dens between February and July. Between July 1st and February 1st all potential badger dens shall be inspected to determine if badgers are present. During the winter badgers do not truly hibernate, but are inactive and asleep in their dens for several days at a time. Because they can be torpid during the winter, they are vulnerable to disturbances that may collapse their dens before they rouse and emerge. Therefore, surveys shall be conducted for badger dens throughout the year. If badger dens are found on the property during the pre-construction survey, the CDFG wildlife biologist for the area shall be contacted to review current allowable management practices.

7.0 References

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United States Fish and Wildlife Service. January 2000. Guidelines for Conducting and Reporting Botanical Inventories for Federally, Proposed, and Candidate Species.

8.0 Site Maps

- **Righetti Agricultural Cluster, VTTM 3004, Development Plan**
- **Biological Resource Map**

INSERT DEVELOPMENT PLAN

INSERT BIO RESOURCE MAP

9.0 Figures

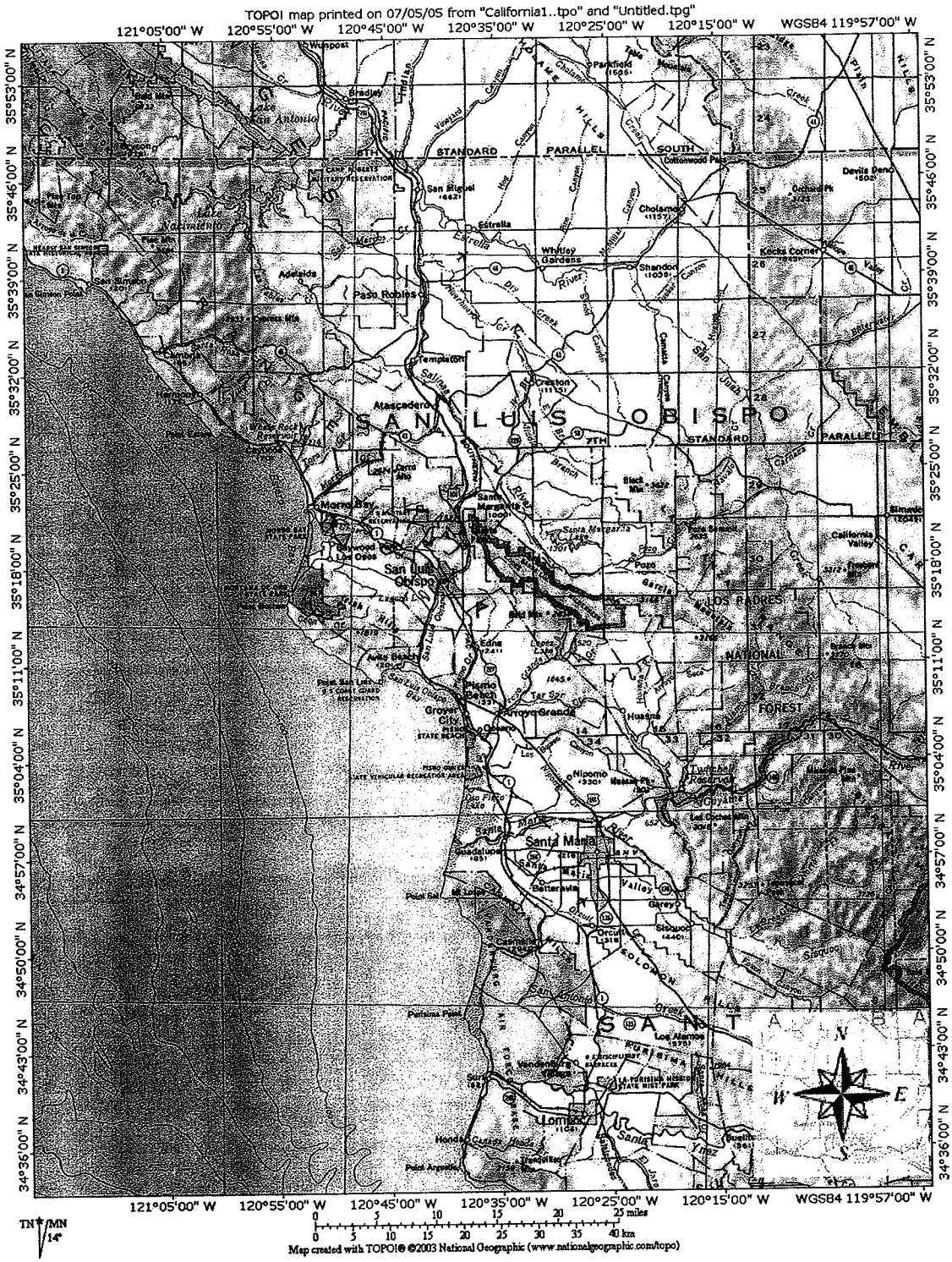

FIGURE 1. LOCATION MAP. The subject property is located in the foothills of the Santa Lucia Mountains in Edna Valley, east of the City of San Luis Obispo. The site is in both the Lopez Mountain and Arroyo Grande NE USGS 7.5 minute quadrangles, San Luis Obispo County, California.

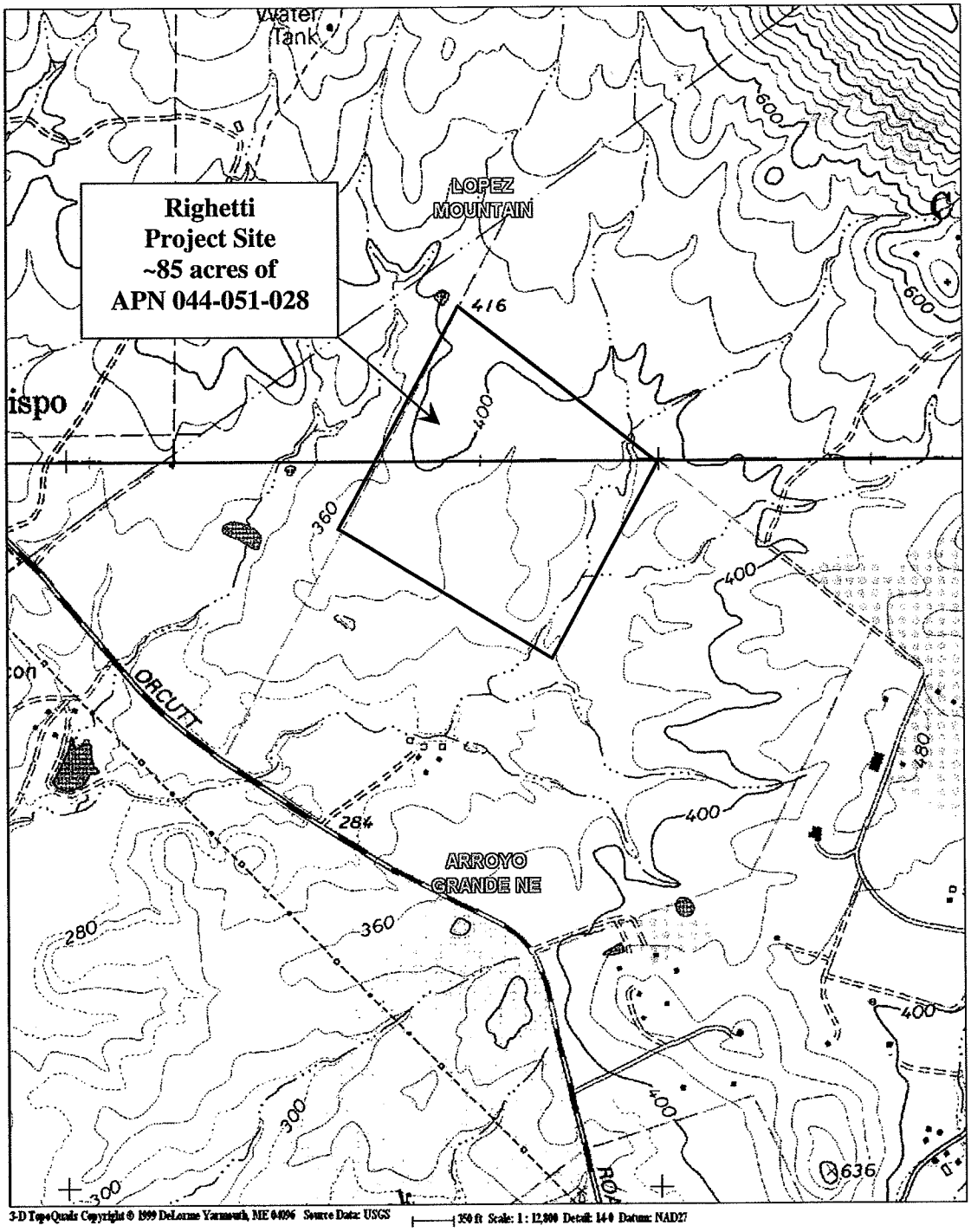

FIGURE 2. USGS TOPOGRAPHIC MAP. The 85-acre project site is located northeast of Orcutt Road. The approximate project boundaries are indicated in black. The Site is in the Lopez Mountain and Arroyo Grande NE USGS 7.5 minute quadrangles.

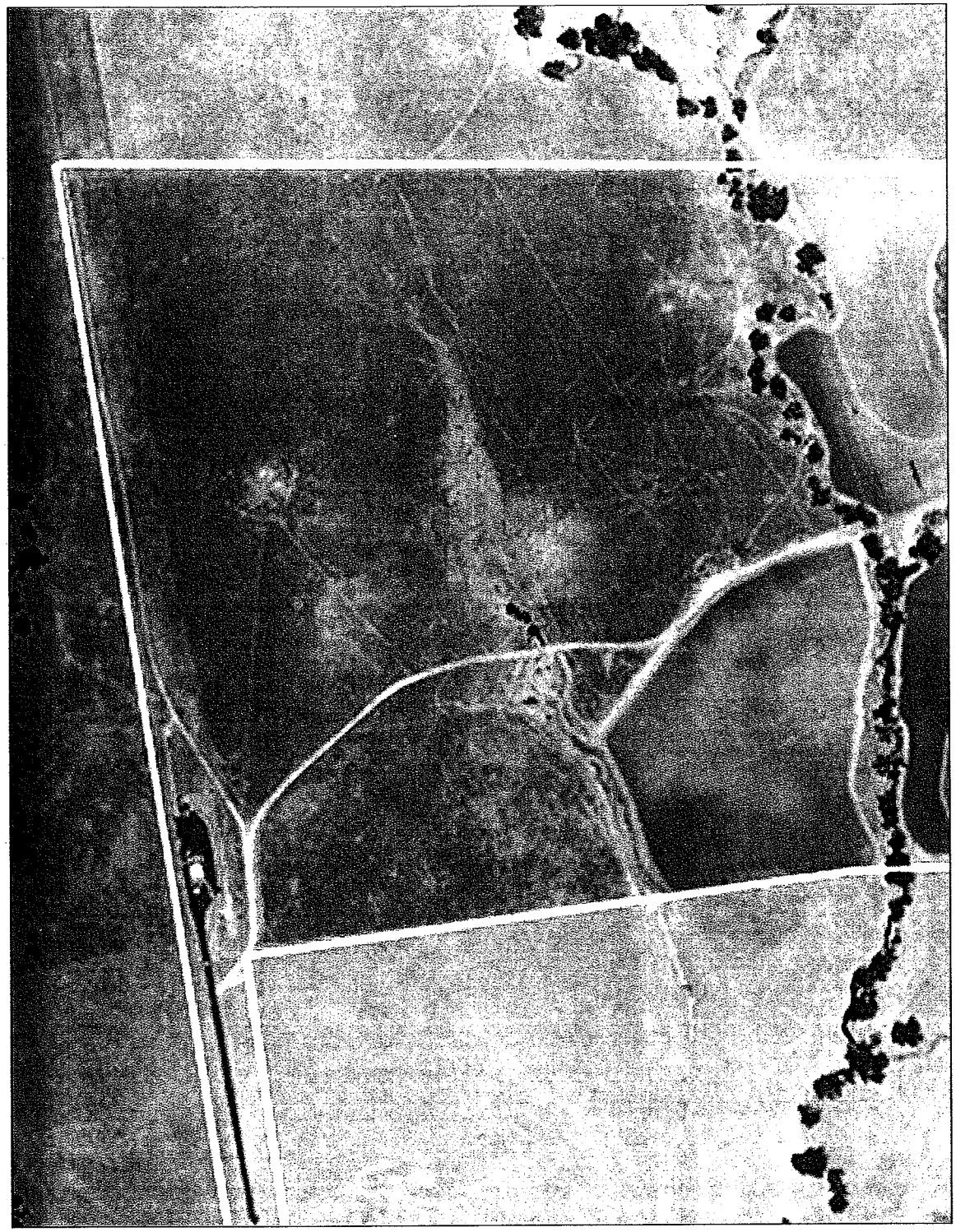

FIGURE 3. AERIAL PHOTOGRAPH. Aerial photo of the approximately 85-acre project site, provided by Wallace Group.

10.0 Photographs

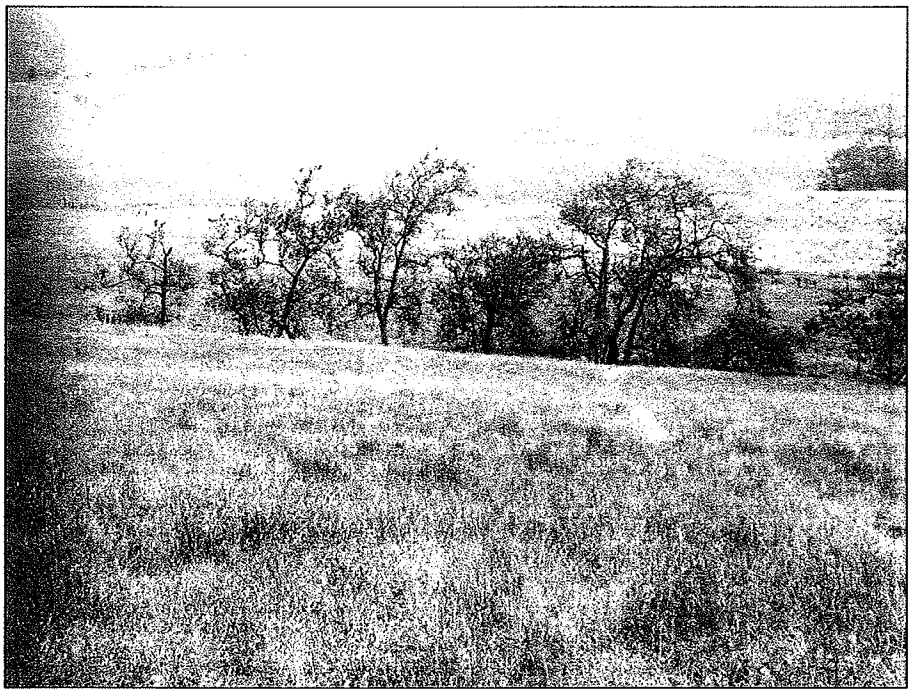

Photo 1. The property consists of grazed grassland habitat with two drainages, including a sycamore dominant riparian corridor. View east.

Photo 2. The riparian corridor has a mature canopy of Western sycamore trees shading a seasonal stream.

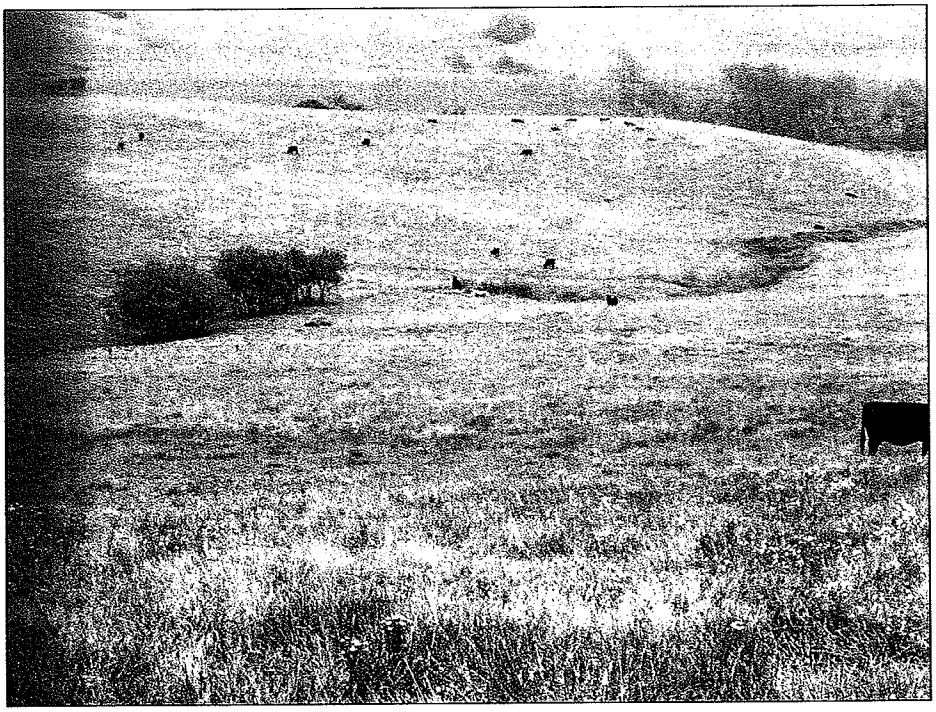

Photo 3. A subsurface spring is marked by the presence of willow shrubs. Wetland conditions are present in this secondary drainage. A road would be constructed along the east edge of the drainage. View north.

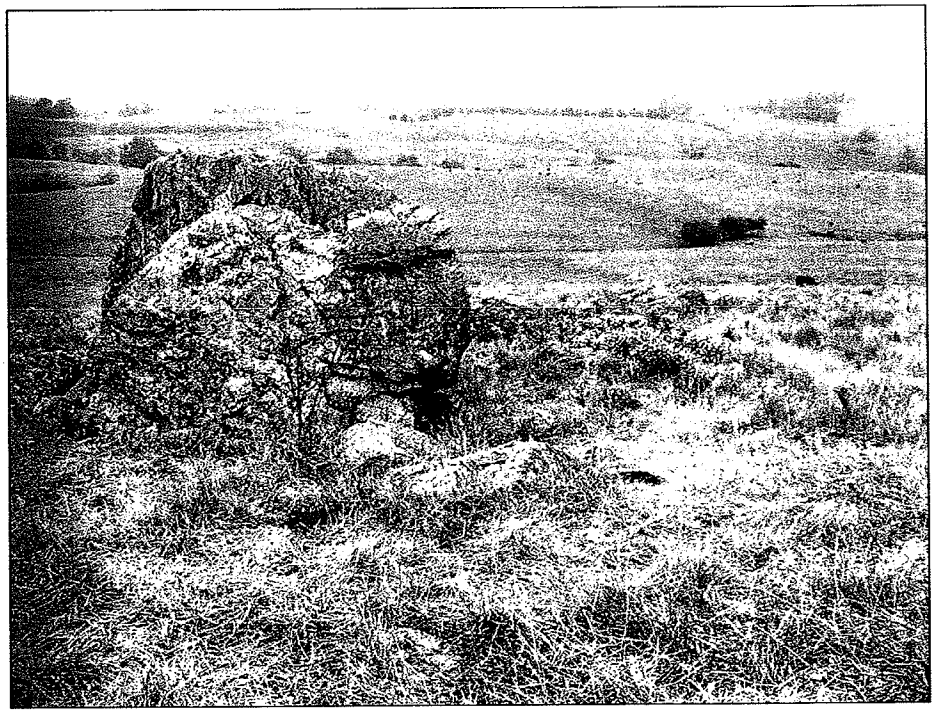

Photo 4. A rock outcrop on a hilltop in the western end of the property. View is to the southeast.

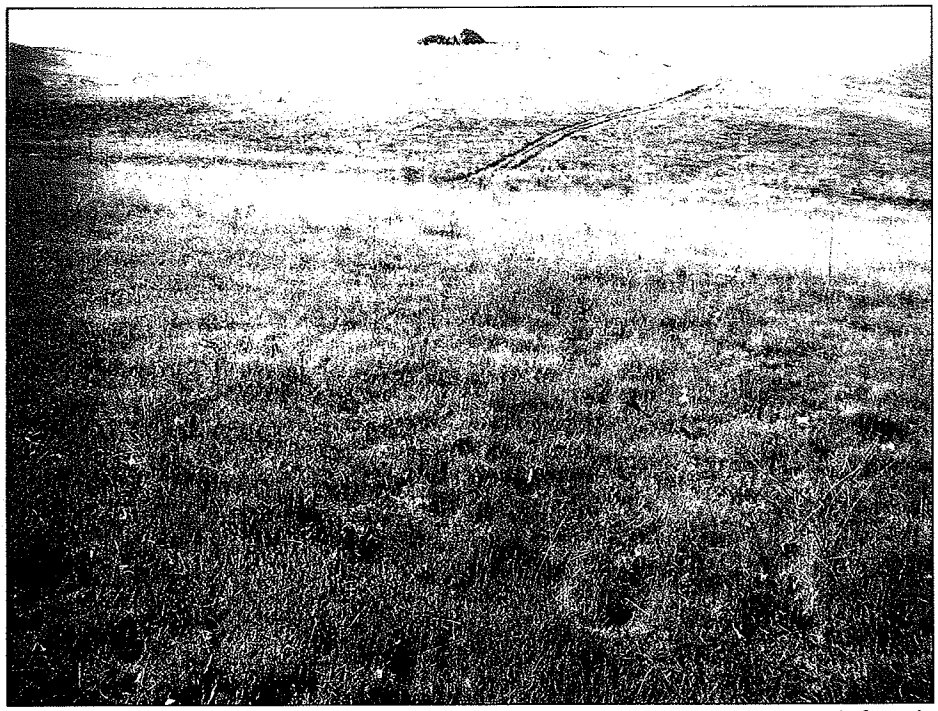

Photo 5. View south of a portion of the grassland habitat proposed for six residential lots. December 3, 2008.

Photo 6. View north of the existing ±12 foot wide agricultural road along the edge of the perennial drainage. This road would be widened to 20 feet

APPENDIX A - Status Codes

CNDDB CONSERVATION STATUS RANKS:

The CNDDB ranking codes are part of the "Heritage Methodology". It is a shorthand formula that provides information about the status of a taxon, both throughout its entire range and within California. We use the best information available to assign these ranks and they are changed and refined as new information becomes available. More detailed information about the conservation status ranking system can be found at: **http://www.natureserve.org/explorer/ranking.htm**

CALIFORNIA ENDANGERED SPECIES ACT (CESA) LISTING CODES: The listing status of each species is current as of the date of this list. The most current changes in listing status will be found in the list of "Endangered and Threatened Animals of California", which the CNDDB updates and issues quarterly (January, April, July, & October).

SE State-listed as Endangered
ST State-listed as Threatened
SCE State candidate for listing as Endangered
SCT State candidate for listing as Threatened
SCD State candidate for delisting

ENDANGERED SPECIES ACT (ESA) LISTING CODES: The listing status is current as of the date of this list. The most current changes in listing status will be found in the list of "Endangered and Threatened Animals of California", which the CNDDB updates and issues quarterly (January, April, July, & October). Federal listing actions are also available at: **http://www.epa.gov/fedrgstr/EPA-SPECIES/index.html.**
After careful consideration we have removed the USFWS Federal Species of Concern (FSC) designation from this list. The Federal Species of Concern list was not maintained on a statewide basis. The Sacramento field office, with jurisdiction over the central portion of California, maintained a list, but the Ventura, Carlsbad and Arcata offices did not. Therefore, species in the northern and southern parts of the state were not considered. Information on the list maintained by the Sacramento field office is available at: **http://sacramento.fws.gov/es/spp_concern.htm**

FE Federally listed as Endangered
FT Federally listed as Threatened
FPE Federally proposed for listing as Endangered
FPT Federally proposed for listing as Threatened
FPD Federally proposed for delisting
FC Federal candidate species (former Category 1 candidates)
SC Species of Concern – list established by National Marine Fisheries Service (NMFS) effective 15 April 2004

ELEMENT RANKING

GLOBAL RANKING

The *global rank* (G-rank) is a reflection of the overall condition of an element throughout its global range.

SPECIES OR NATURAL COMMUNITY LEVEL

G1 = Less than 6 viable element occurrences (Eos) OR less than 1,000 individuals OR less than 2,000 acres.
G2 = 6-20 Eos OR 1,000-3,000 individuals OR 2,000-10,000 acres.
G3 = 21-80 Eos OR 3,000-10,000 individuals OR 10,000-50,000 acres.
G4 = Apparently secure; this rank is clearly lower than G3 but factors exist to cause some concern; i.e., there is some threat, or somewhat narrow habitat.
G5 = Population or stand demonstrably secure to ineradicable due to being commonly found in the world.

SUBSPECIES LEVEL

Subspecies receive a **T-rank** attached to the G-rank. With the subspecies, the G-rank reflects the condition of the entire species, whereas the T-rank reflects the global situation of just the subspecies or variety. For example: *Chorizanthe robusta* var. *hartwegii*. This plant is ranked G2T1. The G-rank refers to the whole species range i.e., *Chorizanthe robusta*. The T-rank refers only to the global condition of var. *hartwegii*.

STATE RANKING

The *state rank* (S-rank) is assigned much the same way as the global rank, except state ranks in California often also contain a threat designation attached to the S-rank.

S1 = Less than 6 Eos OR less than 1,000 individuals OR less than 2,000 acres
- S1.1 = very threatened
- S1.2 = threatened
- S1.3 = no current threats known

S2 = 6-20 Eos OR 1,000-3,000 individuals OR 2,000-10,000 acres
- S2.1 = very threatened
- S2.2 = threatened
- S2.3 = no current threats known

S3 = 21-80 Eos or 3,000-10,000 individuals OR 10,000-50,000 acres
- S3.1 = very threatened
- S3.2 = threatened
- S3.3 = no current threats known

S4 = Apparently secure within California; this rank is clearly lower than S3 but factors exist to cause some concern; i.e. there is some threat, or somewhat narrow habitat. NO THREAT RANK.

S5 = Demonstrably secure to ineradicable in California. NO THREAT RANK.

Notes:

1. Other considerations used when ranking a species or natural community include the pattern of distribution of the element on the landscape, fragmentation of the population/stands, and historical extent as compared to its modern range. It is important to take a **bird's eye or aerial view** when ranking sensitive elements rather than simply counting element occurrences.

2. Uncertainty about the rank of an element is expressed in two major ways:

   By expressing the ranks as a **range** of values: e.g., S2S3 means the rank is somewhere between S2 and S3.

   By adding a ? to the rank: e.g., S2? This represents more certainty than S2S3, but less certainty than S2.

3. Other symbols:

   GH All sites are **historical**; the element has not been seen for at least 20 years, but suitable habitat still exists (SH = All California sites are historical).

   GX All sites are **extirpated**; this element is extinct in the wild (SX = All California sites are extirpated).

   GXC Extinct in the wild; exists in cultivation.

   G1Q The element is very rare, but there are **taxonomic questions** associated with it.

   T Rank applies to a subspecies or variety.

The California Native Plant Society's (CNPS) Lists

1A. Presumed extinct in California
1B. Rare or Endangered in California and elsewhere
2. Rare or Endangered in California, more common elsewhere
3. Plants for which we need more information - Review list
4. Plants of limited distribution - Watch list

List 1A: Plants Presumed Extinct in California

The plants of List 1A are presumed extinct because they have not been seen or collected in the wild in California for many years. Although most of them are restricted to California, a few are found in other states as well. In many cases, repeated attempts have been made to rediscover these plants by visiting known historical locations. Even after such diligent searching, we are constrained against saying that they are extinct, since for most of them rediscovery remains a distinct possibility. Note that care should be taken to distinguish between "extinct" and "extirpated." A plant is extirpated if it has been locally eliminated, but it may be doing well elsewhere in its range.

List 1B: Plants Rare, Threatened, or Endangered in California and Elsewhere.

The plants of List 1B are rare throughout their range. All but a few are endemic to California. All of them are judged to be vulnerable under present circumstances or to have a high potential for becoming so because of their limited or vulnerable habitat, their low numbers of individuals per population (even though they may be wide ranging), or their limited number of populations. Most of the plants of List 1B have declined significantly over the last century.

List 2: Plants Rare, Threatened, or Endangered in California, but More Common Elsewhere

Except for being common beyond the boundaries of California, the plants of List 2 would have appeared on List 1B. From the federal perspective, plants common in other states or countries are not eligible for consideration under the provisions of the Endangered Species Act. Until 1979, a similar policy was followed in California. However, after the passage of the Native Plant Protection Act, plants were considered for protection without regard to their distribution outside the state.

List 3: Plants About Which We Need More Information - A Review list

The plants that comprise List 3 are united by one common theme--we lack the necessary information to assign them to one of the other lists or to reject them. Nearly all of the plants remaining on List 3 are taxonomically problematic.

List 4: Plants of Limited Distribution - A Watch list

The plants in this category are of limited distribution or infrequent throughout a broader area in California, and their vulnerability or susceptibility to threat appears low at this time. While we cannot call these plants "rare" from a statewide perspective, they are uncommon enough that their status should be monitored regularly. Should the degree of endangerment or rarity of a List 4 plant change, we will transfer it to a more appropriate list or deleted from consideration.

Threat ranks:

Recently, CNPS added a decimal threat rank to the List ranks to parallel that used by the CNDDB. This extension replaces the E (Endangerment) value from the R-E-D Code. CNPS ranks therefore read like this: 1B.1, 1B.2, etc.

New Threat Code extensions and their meanings:

.1 - Seriously endangered in California (over 80% of occurrences threatened / high degree and immediacy of threat)

.2 – Fairly endangered in California (20-80% occurrences threatened)

.3 – Not very endangered in California (<20% of occurrences threatened or no current threats known)

Note that all List 1A (presumed extinct in California) and some List 3 (need more information- a review list) plants lacking any threat information receive no threat code extension. Also, these Threat Code guidelines represent a starting point in the assessment of threat level. Other factors, such as habitat vulnerability and specificity, distribution, and condition of occurrences, are also considered in setting the Threat Code.

APPENDIX B – CNDDB Reports

- **Cambria morning glory** (*Calystegia subacaulis* ssp. *episcopalis*)
- **Obispo Indian paintbrush** (*Castilleja densiflora* ssp. *obispoensis*)

California Native Species Field Survey Form

Mail to:
Natural Diversity Database
California Department of Fish and Game
1807 13th Street, Suite 202
Sacramento, CA 95814

For Office Use Only
Source Code _____ Quad Code _____
Elm Code _____ Occ. No. _____
EO Index No. _____ Map Index No. _____

Date of Field Work: 5 (month (mm)) - 25 (date (dd)) - 2005 (year (yyyy))

Scientific Name: Calystegia subacaulis ssp. episcopalis

Common Name: Cambria Morning Glory

Species Found? ☑ yes ☐ no _____ If not, why?
Total No. Individuals 100 Subsequent Visit? ☑ yes ☐ no
Is this an existing NDDB occurrence? _____ ☑ no ☐ unk.
Yes, Occ. #
Collection? If yes: _____ Number _____ Museum / Herbarium

Reporter: Jason Dart and David Lee
Address: Althouse and Meade, Inc.
1875 Wellsona Road Paso Robles, CA 93446
Email Address: jason@althouseandmeade.com
Phone: (805) 467-1041

Plant Information
Phenology: 90.00 % vegetative 10.00 % flowering _____ % fruiting

Animal Information
Age Structure: _____ # adults _____ # juveniles _____ # unknown
☐ breeding ☐ wintering ☐ burrow site ☐ rookery ☐ nesting ☑ other

Location (please also attach or draw map on back)
Private rangeland southeast of the City of San Luis Obispo, northeast of Orcutt Road. APN 044-051-018

County: San Luis Obispo County Landowner / Mgr.: Righetti
Quad Name: Arroyo Grande NE and Lopez Mountain Elevation: 380'
T _____ R _____ _____ 1/4 of _____ 1/4 of Section _____ T _____ R _____ _____ 1/4 of _____ 1/4 of Section _____
UTM: Zone: _____ (10, 11) Datum: NAD27 (NAD83, NAD27, WGS84, other)
Source: USGS topo map program (GPS, map & type, etc.) Point Accuracy: _____ Meters
UTM Coordinates N35.24957 / W120.60607-center of 85-acre project site

Habitat Description *(plant communities, dominants, associates, substrates/soils, aspects/slope)*
At least 100 Cambria morning glory plants were mapped in grazed grassland habitat on Los Osos-Diablo soil complex. The plants were often, but not always, near rock outcrops.

Other rare species? Castilleja densiflora ssp. obispoensis

Site Information Overall site quality: ☐ Excellent ☐ Good ☑ Fair ☐ Poor
Current / surrounding land use: Heavily grazed grassland with avocado orchards to the southeast.
Visible disturbances / possible threats: Proposed development.
Comments: No development site plan available for review. Impact unknown.

Determination: *(check one or more, and fill in blanks)*
☐ Keyed (cite reference) _____
☐ Compared with specimen housed at: _____
☐ Compared with photo / drawing in: _____
☐ By another person (name): _____
☑ Other: Previous experience with the species

Photographs: *(check one or more)* Slide Print
Plant / animal ☐ ☑
Habitat ☐ ☑
Diagnostic feature ☐ ☑
May we obtain duplicates at our expense? ☑ yes ☐ no

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